

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES



Hello Coshocton County! March has been a wet one. At our home outside of Canal Lewisville, we recorded 8.88 inches of rain in March and 15.65 total for 2020. Jim Noel has provided an April outlook for weather and it does not look favorable for field work in April. He mentions that we will have the same difficulty as last year for the 2020 planting season.

As part of my daily social distancing routine, I either take a run or walk on the back roads near our house. Emily and I were out taking a Sunday evening walk when we noticed a lot of Common Mullein in the road ditches. Emily was quick to respond she grew up hearing the plant referred to as **Cowboy's Toilet Paper**. Then the light bulb went off---could this be Mother Nature's answer to our COVID-19 toilet paper shortage? I hope you enjoy the article which I wrote on this weed which can be seen all over Coshocton County.

Along our walks, I have also been discouraged to see all the trash which is along our roadsides. We spent a few hours one day picking up trash over a 2 mile stretch on Township Road 192 and County Road 170. Some of the same trash (treasures) we found included: 6 full Corona Beers (so appropriate), a press wheel off a planter, hubcap, garage door opener, 3 golf balls, gloves, food wrappers, Taco Bell hot sauce, and a ton of beer cans and bottles. It is so easy to glue yourself to the TV/Social Media with all that is going on. We hope you will take some time to make your part of the world a better place. Stay well everyone. Together, we can make a difference!

Sincerely,
David Marrison

Coshocton County OSU Extension ANR Educator

April 1, 2020 Issue

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What if I Missed Private Pesticide Applicator & Fertilizer Re-certification?

By Eric Richer, OSU Extension Educator

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-07/i-missed-private-pesticide-applicator-and-fertilizer-re>

Many local Extension office have received farmer calls lately asking how the COVID-19 emergency will affect pesticide recertification. The "Stay at home" order began prior to the end of March 2020, leaving those remaining private pesticide and fertilizer training programs postponed or suspended for the moment. On a normal year, the 3-year private applicator re-certification cycle ends on March 31. Additionally, Ohio Department of Agriculture's new pesticide applicator testing program was also suspended for now. Among others, this will affect those who wish to mix, load or apply approved dicamba products (Xtendimax, FeXapan, Engenia or Tavium) to Xtend traited soybeans, as these products are now restricted use.



With the signing of House Bill 197, Ohio's COVID-19 emergency response legislation, the March 31, 2020 deadline for private pesticide applicators (farmers) and the May 31, 2020 deadline for agricultural fertilizer certificate holders to renew their license and get training has been extended. The deadline is now 90 days after the state of emergency Executive Order ends or December 1, 2020, whichever comes first.

All in-person OSUE training events are cancelled or postponed through at least May 15. We will continue to update you as meetings are scheduled. You may continue to check these websites for more information: www.pested.osu.edu or <https://agri.ohio.gov/wps/portal/gov/oda/divisions/plant-health/news-and...>

With the signing of House Bill 197, Ohio's COVID-19 emergency response legislation, the March 31, 2020 deadline for private pesticide applicators (farmers) and the May 31, 2020 deadline for agricultural fertilizer certificate holders to renew their license and get training has been extended. The deadline is now 90 days after the state of emergency Executive Order ends or December 1, 2020, whichever comes first. If you are still in need of continuing education courses, please check <https://pested.osu.edu/> for more information on when courses will resume.

Challenging Conditions Remain into April

By Jim Noel

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-07/challenging-conditions-remain-april>

Temperatures and Rainfall: Temperatures will start the first 7 days of April 1-3 degrees F above normal. Rainfall will start April below normal about half of normal. That is some good news as the end of March (as forecast) was very wet. However, most indications are for the remainder of April after the first week, temperatures will be near normal and rainfall slightly above normal. This will put pressure on early spring planting in April. Evaporation and evapotranspiration will be held in check by closer to normal temperatures as we go through April. The May outlook calls for warmer than normal and a little wetter than normal but not as wet as last year.

Soil Moisture and Temperatures: Soil temperatures has come out of winter above normal due to heavy saturation and the mild winter. However, soil moisture remains in the top 1-10% wettest on record so it is wet. With excess moisture to get rid of in the soils, expect soil temperatures to trend quickly from above normal to near normal.

Freeze and Frost: The normal time for the last hard freeze typically ranges from about April 10-20 from south to north. Frost is not uncommon into very early May. All indications remain that about a normal last frost and freeze can be expected this spring.

Summary: Most indications have not changed from the outlooks this winter. The spring planting season overall looks a bit warmer and wetter than average but not quite as wet as 2019. Therefore, expect challenging conditions at least through April if not May.

The latest NOAA climate information can be found at: <https://www.cpc.ncep.noaa.gov>
The latest river and soil information can be found at: <https://www.weather.gov/ohrfc/>
The latest Water Resources Outlooks can be found at: <https://www.weather.gov/ohrfc/WRO>

Common Mullein- Mother Nature's Answer to our Toilet Paper Shortage?

by David Marrison, Coshocton County Extension Educator

When the news broke that we would need to retreat to our homes due to Coronavirus-19, the run on milk, eggs, bread and toilet paper began at our local grocery stores. I have been especially fascinated by the hoarding of toilet paper. Every time I have been out to get food and supplies, the toilet paper shelves have been completely bare.

As my wife Emily and I were out taking a Sunday evening walk, I noticed along the ditches some green, soft-looking plants which appeared to be the lambs-ear plant, with which many of us are familiar. After closer inspection, the plant we were looking at was Common mullein or *Verbascum thapsus*. Emily was quick to respond that locals refer to the plant as **Cowboy's Toilet Paper**. Then the light bulb went off---could this be Mother Nature's answer to our COVID-19 toilet paper shortage?



Photo by David Marrison,
OSU Extension

Besides Cowboy's Toilet Paper, you may have heard it referred to as Quaker's rouge, candle wick, flannel leaf, velvet dock, big taper, bunny's ear, miner's candle, or poor man's blanket. These names commonly reflect some characteristic the plant exhibits, such as the flower stalk or leaf texture. If you read survival guides, this plant is mentioned as an emergency roadside toilet paper due to the large, fuzzy leaf of this botanical wonder. One word of caution however, the fuzzy leaf may cause some skin irritation when used as toilet paper.

The history of this plant is fascinating. Common mullein traces its roots back to Europe as it was planted in gardens for its medicinal purposes as an expectorant, diuretic, pain relief and healing of abrasions. Interesting enough, since Quaker women weren't allowed to wear make-up, they would rub the hairy leaves on their cheeks to create a homemade blush look. Hence the name Quaker's Rouge. However, its major claim to fame is definitely its use as a toilet paper.

Like many plants, it escaped the confines of cultivation and is now a weed which can be found across the United States. In Ohio, we tend to see it in disturbed areas such as railroad right-of-ways, roadsides, fence rows, ditches, and pastures. In fact, it is one of the first weeds to germinate when an area is disturbed. It prefers sunny, hot, dry conditions. It grows quicker than native plants so it can quickly take over a newly disturbed area. Common mullein is a minor problem in cropping systems because it is unable to survive cultivation and is intolerant of shade. However, it can persist and remain problematic in overgrazed pastures due to it generally being avoided by livestock.



Photo by David Marrison,
OSU Extension

Common mullein is a spring-germinating biennial. In the first year, it produces a large basal rosette (7 to 24 inches) of large, furry leaves with a substantial crown. The leaves are covered by dense hairs, making it similar to felt fabric. Those hairs make it very undesirable to livestock and wildlife that might feed on the foliage of the plant. The rosette overwinters, and in the second year, it produces a single, thick, erect flowering stem with yellow flowers reaching upwards to 5 feet in height.

The flowers are present from June through September. The flowers are sessile on 1 or 2 terminal cylindrical spikes (7-19 inches in length by 1 3/16 inches wide). Individual flowers are just under 1 inch in diameter and have fused yellow petals with 5 lobes. A single plant can produce up to 175,000 seeds and those seeds can remain viable up to 100 years. The seeds have wavy ridges alternating with deep grooves that resemble corn cobs. The seeds are typically 1/32 inch in length. After flowering, the plant dies leaving the tall stem and the dead stems can persist for more than a year.

Common mullein is difficult to eradicate once established, due to its long-lived seed bank, but there are several options for management. One simple method is to ensure good open space competition by encouraging good groundcover, since this weed is one of the first to germinate in bare ground. Hand pulling is an effective method, if plants are pulled before seed production.

Similarly, removing plants with a hoe, making sure to cut through the crown, can control common mullein.

Chemically, one-year old rosettes can be controlled easily using non-selective herbicides such as glyphosate products applied directly to the plant. Greater care must be taken when applying these products to the upright, two-year old plants, in order to reduce drift onto non-target plants. It is important to use a surfactant in conjunction with the herbicide. Control with herbicide is considered difficult due to hairs on the foliage, which can reduce herbicide absorption. However, using a surfactant can alleviate that problem. Selective broadleaf herbicides such as triclopyr are a better choice in areas where desirable grasses may be present. Other chemicals which been found to be effective include picloram + 2,4D; aminopyralid; aminopyralid + 2,4D; metsulfuron methyl; metsulfuron methyl +dicamba+ 2,4D. Refer to the pesticide manufacturer's label for specific information and restrictions regarding proper herbicide use.

French author, Marcel Proust, once said "The real voyage of discovery is not in seeking new landscapes but in having new eyes." The coronavirus pandemic is providing us an opportunity to see the world with a new set of eyes. As we distance ourselves socially, I encourage you to get outside and take a walk. You never know when you will stumble across a plant like Common Mullein which could be the answer to our toilet paper shortage!

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Chemical Control of Common Mullein. Walter H. Fick and Sandra Wick, Department of Agronomy, Kansas State University, Manhattan, KS. <http://ncwss.org/proceed/2006/abstracts/145.pdf>

Plant Conservation Alliance. Fact Sheet: Common Mullein.

<https://www.invasive.org/weedcd/pdfs/wgw/commonmullein.pdf>



Photo Source: Vaughn Hammond, University of Nebraska



Photo by David Marrison, OSU Extension

Ohio's Coronavirus-19 Stay at Home Order & Agricultural Businesses

By: Peggy Kirk Hall, OSU Extension

Source: <https://ohioaglaw.wordpress.com/2020/03/26/ohios-coronavirus-19-stay-at-home-order-and-agricultural-businesses/>

It's been a quiet few weeks here at the Farm Office as we adjust to life with Coronavirus-19, but it's time to get back to the Ohio Ag Law Blog. We hope our readers are safe and healthy.

We've received several questions about **Ohio's Stay at Home Order** and how it affects agricultural businesses. As you well know, the Order states that residents are to stay at home and may leave "only for Essential Activities, Essential Governmental Functions, or to participate in Essential Businesses and Operations." All non-essential businesses and activities are to cease. It became effective early Tuesday morning and remains in place until the end of the day on April 6. Here are the relevant parts of the Order that answer the questions we've received:

What businesses are "essential"?

The Order lists (on pages 5 and 6) the "Essential Businesses and Operations" that may continue during this period. The list specifically includes many agricultural activities, such as:

12 b. Stores that sell groceries and medicine. Grocery stores, pharmacies, *certified farmers' markets, farm and produce stands*, supermarkets, convenience stores, and *other establishments engaged in the retail sale of groceries, canned food, dry goods, frozen foods, fresh fruits and vegetables, pet supplies, fresh meats, fish, and poultry, prepared food, alcoholic and non-alcoholic beverages*, any other household consumer products (such as cleaning and personal care products), and specifically includes their supply chain and administrative support operations. This includes stores that sell groceries, medicine, including medication not requiring a medical prescription, and also that sell other non-grocery products, and products necessary to maintaining the safety, sanitation, and essential operation of residences and Essential Businesses and Operations;

c. Food, beverage, and licensed marijuana production and agriculture. Food and beverage manufacturing, production, processing, and cultivation, including *farming, livestock, fishing, baking, and other production agriculture, including cultivation, marketing, production, and distribution of animals and goods for consumption*; licensed medical marijuana use, medical marijuana dispensaries and licensed medical marijuana cultivation centers; and *businesses that provide food, shelter, and other necessities of life for animals*, including animal shelters, rescues, shelters, kennels, and adoption facilities;

h. Gas stations and businesses needed for transportation. Gas stations and auto supply, auto-repair, *farm equipment*, construction equipment, boat repair, and related facilities and bicycle shops and related facilities;

o. Restaurants for consumption off-premises. *Restaurants and other facilities that prepare and serve food*, but only for consumption off-premises, through such means as in-house delivery, third-party delivery, drive-through, curbside pick-up, and carry-out.... This Order is consistent with and does not amend or supersede prior Orders regarding the closure of restaurants.

The list also includes many businesses that service and supply agricultural businesses, such as hardware and supply stores, shipping and delivery services, and financial and professional services.

Can employees travel to and for an "essential business"?

Yes. The Order allows (on page 2) residents to leave their homes to perform work at Essential Businesses or Operations. The Order also allows (on page 7) for "Essential Travel," which includes "any travel related to the provision of or access to" Essential Businesses and Operations.

What precautions should I take for employees and others at my "essential business"?

First, the Order lays out (on page 8) several required measures that Essential Businesses must follow:

15 a. Required measures. Essential Businesses and Operations and businesses engaged in Minimum Basic Operations must take proactive measures to ensure compliance with Social Distancing Requirements, including where possible:

1.
 1. Designate six-foot distances. Designating with signage, tape, or by other means six-foot spacing for employees and customers in line to maintain appropriate distance;
 2. Hand sanitizer and sanitizing products. Having hand sanitizer and sanitizing products readily available for employees and customers;
 3. Separate operating hours for vulnerable populations. Implementing separate operating hours for elderly and vulnerable customers; and
 4. Online and remote access. Posting online whether a facility is open and how best to reach the facility and continue services by phone or remotely.

Second, the Order also includes (on pages 8 and 9) a **COVID-19 Information and Checklist for Businesses/Employers** that requires businesses and employers to take the following actions. **We encourage employers to read these provisions carefully:**

1. Allow as many employees as possible to work from home by implementing policies in areas such as teleworking and video conferencing.
2. Actively encourage sick employees to stay home until they are free of fever (without the use of medication) for at least 72 hours (three full days) AND symptoms have improved for at least 72 hours AND at least seven days have passed since symptoms first began. Do not require a healthcare provider's note to validate the illness or return to work of employees sick with acute respiratory illness; healthcare provider offices and medical facilities may be extremely busy and not able to provide such documentation in a timely way.
3. Ensure that your sick leave policies are up to date, flexible, and non-punitive to allow sick employees to stay home to care for themselves, children, or other family members. Consider encouraging employees to do a self-assessment each day to check if they have any COVID-19 symptoms (fever, cough, or shortness of breath).
4. Separate employees who appear to have acute respiratory illness symptoms from other employees and send them home immediately. Restrict their access to the business until they have recovered
5. Reinforce key messages stay home when sick, use cough and sneeze etiquette, and practice hand hygiene to all employees, and place posters in areas where they are most likely to be seen. Provide protection supplies such as soap and water, hand sanitizer, tissues, and no-touch disposal receptacles for use by employees.
6. Frequently perform enhanced environmental cleaning of commonly touched surfaces, such as workstations, countertops, railings, door handles, and doorknobs. Use the cleaning agents that are usually used in these areas and follow the directions on the label. Provide disposable wipes so that commonly used surfaces can be wiped down by employees before each use.
7. Be prepared to change business practices if needed to maintain critical operations (e., identify alternative suppliers, prioritize customers, or temporarily suspend some of your operations).

What is "social distancing," exactly?

There's been a lot of talk about social distancing. The Order requires residents to practice social distancing when outside of their residences and defines (on page 15), exactly what it means:

15. Social Distancing Requirements. For purposes of this Order, Social Distancing Requirements includes maintaining at least six-foot social distancing from other individuals, washing hands with soap and water for at least twenty seconds as frequently as possible or using hand sanitizer, covering coughs or sneezes (into the sleeve or elbow, not hands), regularly cleaning high-touch surfaces, and not shaking hands.

Who's enforcing the Order?

The Order also addresses enforcement (on page 8), stating that:

17. Enforcement. This Order may be enforced by State and local law enforcement to the extent set forth in Ohio law. To the extent any public official enforcing this Order has questions regarding what services are prohibited under this Order, the Director of Health hereby delegates to local health departments the authority to answer questions in writing and consistent with this Order.

Note, however, that Governor DeWine (on Twitter) has encouraged businesses not to overwhelm law enforcement or local health departments with questions and advice on what's "essential," but instead to "use your own good judgment of that order to make your own determination if you are essential."

Are there recordkeeping requirements?

No. But we attorneys always advise agricultural operators to keep good records. Governor DeWine agrees, as he has stated (on Twitter) that businesses should "create a document about why you believe you are an essential business and how you are providing a safe workplace." If there is a question in the future about what you did or did not do during this important period, be sure that you have documentation to back it up. As always, documentation includes not only written information but also photographs and videos.

We encourage readers to carefully review the Stay at Home Order, which is available [here](#) on Ohio's coronavirus.ohio.gov website. OSU also has a site with COVID-19 resources, available [here](https://u.osu.edu/2019farmassistance/covid-19/) on <https://u.osu.edu/2019farmassistance/covid-19/>

On-Farm Biosecurity to Keep Us and Employees Safe

By: [Jason Hartschuh](#), Extension Educator, Crawford County & [Dr. Gustavo Schuenemann](#), Extension Dairy Veterinarian, The Ohio State University Extension

Source: <https://dairy.osu.edu/newsletter/buckeye-dairy-news/volume-22-issue-2/farm-biosecurity-keep-us-and-employees-safe>

Agriculture is no stranger to contagious disease. Drawing on sanitation experiences from outbreaks, such as avian and swine influenza or the 2001 outbreak of foot and mouth disease in the United Kingdom in 2001, can help us through the current pandemic. Looking back at many of these experiences, we know that we can pull together maybe from a distance and get through the current human viral outbreak and keep our farms running. Unless they are sick, farmers don't usually tell their workers to stay home, but through keeping social distance on the farm and increasing many of our tried and true disinfection protocols, we can all stay healthy. One big difference is that instead of disinfecting our boots, we need to disinfect all surfaces around us and all our employees touch. This may also be a good time to review the visitation requirements you have on your farm. To keep you and your service providers safe, be sure to follow all their company requests and keep your distance when they come onto the farm or respect their calling instead of coming for a visit.

This first thing that came to mind looking around our farm and the feed tractor is the need to do a deep cleaning before any disinfectant can work. Most disinfectants won't work if the surface has any organic material present. I often remember one professor at OSU saying "you can't Disinfect shit". As a first step, wear a pair of disposable gloves and scrub all surfaces that are touched so that you can use a disinfectant on them. Once all surfaces are clean, filling a one-gallon hand sprayer with disinfectant to spray all surfaces down at the end of each shift can be helpful. If this sprayer was previously used for pesticides, be sure to triple rinse it with a tank cleaning agent or ammonia. The EPA has many different disinfectant options available: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>. Concentration is very important, but a few common active ingredients on this list are sodium hypochlorite, sodium chlorite, ethanol, quaternary ammonia, and hydrogen peroxide. If using a bleach solution, the goal is a minimum of 1000 ppm sodium hypochlorite or for household bleach, 1/3 cup of bleach per gallon of water.

High Touch Surfaces

A few high touch surfaces to consider are tables, hard-backed chairs, doorknobs, light switches, power switches for large motors, phones, tablets, touch screens, keyboards, handles, desks, toilets, sinks, cabinet handles, mailbox handle, shop hand tools, welders, all tractor controls, tractor seats, hand rails, high touch areas in the barn, rattle paddles, all controls in milking parlor, and anything else people may touch.

Porous Surfaces on the Farm

For porous surfaces, such as tractor seats, it may be beneficial to wrap them in plastic to allow for better cleaning. Once wrapped in plastic, these surfaces can be treated the same as all other high touch areas. Vinyl seats should be treated as a hard surface, high touch.

Electronics

Discourage farm workers from using their personal electronic devices while at the farm. If you have an electronics cleaner, use that; otherwise, keyboards, mouse, and touch screens can be cleaned with at least a 70% alcohol disinfectant spray or wipe. Plastic covers may be available for keyboards and touch screens.

Sharing Objects

Be cautious when handling and sharing objects (e.g., pens, clipboard, etc.) that are used as part of your daily routine. Many objects are often used by multiple employees during the same or different shifts. Hand-washing, disinfection, and wearing disposable gloves is recommended for all employees on the farm. If possible, provide additional supplies of these items that are typically shared and assign them to each employee, so they no longer must share them.

Additional considerations:

- Have employees always wear gloves.
- Each person should have their own welding gloves and other personal protective equipment (PPE)
- When possible, assign a tractor to a single person.
- Maintain the 6-foot social distance when having a conversation; stay a cow length apart.
- Assign individual projects when safely possible (e.g., one shop project per person).
- Put hand sanitizer with at least 60% alcohol in all machinery and work areas.

Resources:

Questions Regarding the Novel Coronavirus (Covid-19) on Farms with Employees: <https://wayne.osu.edu/sites/wayne/files/imce/COVID-19%20Farm%20Employees%20FAQ%27s%20English.pdf>

Disinfection in On-Farm Biosecurity Procedures: <https://ohioline.osu.edu/factsheet/vme-8>

Cleaning and Disinfection for Households: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>

Biosecurity Fundamentals for Extension Personnel: <https://ohioline.osu.edu/factsheet/vme-5>

Coronavirus Aid, Relief, & Economic Security Act (CARES)- What does it Mean for Farmers?

By: Paul Neiffer, Certified Public Accountant

Source: <https://blogs.claconnect.com/agribusiness/what-can-farmers-expect/>

One of my favorite tax law sayings is “We have the Law – Now we need the Rules”. The same will apply to the Cononavirus Aid, Relief and Economic Security (CARES) Act signed by President Trump on Friday. We know the law but likely on most of the Act we still don’t know the rules. However, let’s review some of the key provisions that CARES can provide for farmers.

We know the USDA received a \$14 billion allocation to replenish the CCC coffers. This allows the Secretary to come up with some type of “MFP” type program to assist farmers. It will not be called the Market Facilitation Program since this has nothing to do with a tariff impact. Also, farmers who benefitted under the MFP program

may not benefit as much under this program since the payments are more likely to be evenly distributed versus a tariff impact payment structure.

Second, Secretary Purdue's office received an additional \$9.5 billion that is targeted to provide relief for cattle and other livestock producers plus most of the specialty crops that appear to have been impacted the most by COVID-19 to date. Only hog and dairy participated under MFP; whereas cattle farmers should participate now.

Farmers will have a choice between obtaining a SBA Payroll Protection Program (PPP) loan that provides immediate cash or receiving a retention credit of 50% of the first \$10,000 of employee wages. If the PPP loan is forgiven, the employer share of payroll taxes may not be deferred for the remainder of 2020. Under the deferral program, half of the applicable payroll taxes will be due on December 31, 2021 and the remaining half are due on December 31, 2022. You will need to carefully review these options with both your banker and your tax professional as additional rules are issued.

If your annual total payroll costs are less than \$100,000, then neither option (PPP loan or deferral of payroll taxes) will provide much benefit. For example, the maximum loan available under the PPP program is 2.5 times one month's average payroll costs. \$100,000 of payroll costs would generate a maximum loan of about \$21,000. If you spend at least this amount on payroll, rents, interest on mortgages and utilities by June 30, 2020, the loan is forgiven and it is non-taxable.

The payroll tax credit could generate up to about \$15,000 of savings (assuming three employees paid at least \$10,000 in the quarter) and the deferral of payroll taxes might generate a few thousand dollars of additional cash flow savings. However, if you are dairy or other farm operation with 100's of employees, the PPP program likely will provide the most benefit assuming that you qualify under the "rules" to be issued.

Poison Hemlock Control

by: Mark Loux & Curtis Young

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-07/poison-hemlock-control>

Poison hemlock remains one of the more persistent and prevalent poisonous weeds that we deal with in Ohio. It's most typically a biennial plant (sometimes perennial), emerging from seed in year one and developing into a low-growing rosette by late fall. The rosette overwinters and then resumes growth in the spring of year two. Stem elongation initiates sooner in spring than many other biennials, and this is followed by continued growth and development into the often very tall plant with substantial overall size. Flowering and seed production occur in summer.



Failure to control poison hemlock occurs partly because, while it often grows in edges and fencerows around crop fields, no one really pays much attention to it until it does reach this large size when it's less susceptible to herbicides. And everyone is busy getting crops planted in spring anyway so control of hemlock gets low priority. Stages in the poison hemlock life cycle when it is most susceptible to control with herbicides are: 1) fall, when in the low-growing rosette stage; and 2) early spring before stem elongation occurs. It's most easily controlled in fall, but several products can work well in spring. Herbicide effectiveness ratings for poison hemlock can be found in Table 21 of the current Weed Control Guide for Ohio, Indiana, and Illinois. Herbicides rated 8 or 9 on poison hemlock include the following: 9 – Crossbow, Remedy Ultra; 8 – Cimarron Max, Curtail, dicamba, glyphosate. Mixing glyphosate and dicamba can improve control compared with either applied alone.



Several online resources cover poison hemlock more comprehensively than this article does, including one from the University of Missouri which can be accessed at: <https://ipm.missouri.edu/IPCM/2012/2/Weed-of-the-Month-Poison-Hemlock/> Information on toxicity can also be found via an internet search or by contacting OSU Extension if help is needed to resolve a specific concern.

Nitrogen Rate Recommendations for Wheat 2020

By: [Ed Lentz, CCA](#), [Laura Lindsey](#), [Steve Culman](#)

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-07/nitrogen-rate-recommendations-wheat-2020>

Wheat has already reached green-up across the state so spring N may be applied anytime fields are fit. Keep in mind that research has shown N can be applied up to Feekes GS 6 (one visible node) without a reduction in yield. However, wheat is growing slowly because of the cool temperatures, particularly in northern Ohio. Nitrogen applied early has the potential to be lost since wheat will use little N prior to jointing (Feekes GS 6). Urea-ammonium nitrate (UAN) or 28% has the greatest potential for loss and ammonium sulfate the least. Urea will have little potential for loss as long as it does not volatilize. No stabilizer will protect the nitrate component of UAN, which is roughly 25% of the total N in UAN at application time.

Ohio State University recommends the Tri-State guide for N rates in wheat. This system relies on yield potential. As a producer, you can greatly increase or reduce your N rate by changing the value for yield potential. Thus, a realistic yield potential is needed to determine the optimum N rate. To select a realistic yield potential, look at wheat yield from the past five years. Throw out the highest and lowest wheat yield, and average the remaining three wheat yields. This three-year average should reflect the realistic yield potential. Table 10 in the Tri State guide recommends 110 lb N for yield goals of 90+; 70 lb for 75 bushels; and 40 lb N for 50-bushel yield goal (these recommendations are for total N and include any fall N). If you prefer to be more specific, the following equation may be used for mineral soils, which have both 1 to 5% organic matter and adequate drainage:



$$\text{N rate} = 40 + [1.75 \times (\text{yield potential} - 50)]$$

No credit is given for previous soybean or cover crops, since it is not known if that organic N source will be released soon enough for the wheat crop. The Tri-state recommends that you subtract from the total (spring N) any fall applied N up. I would not credit no more than 20 lb/A even if a larger amount was applied. Whether you deduct fall N depends how much risk you are willing to take and your anticipated return of investment from additional N. Based on the equation above and deducting 20 lb from a fall application, a spring application of 110 lb N per acre would be recommended for a yield potential of 100 bu, 90 for 90 bu potential; 70 for a 80 bu potential and 40 lb N per acre for a 60 bu potential. Nitrogen rate studies at the Northwest Agricultural Research Station have shown the optimum rate varies depending on the year. However, averaged over years, yield data from these studies correspond well with the recommendation equation given above. These studies have also shown that regardless of the year, yields did not increase above a spring rate of 120 lb N per acre.

Wheat generally does not benefit from a nitrification inhibitor since temperatures are relatively cool at application time and the application is made to a growing crop, this is especially true as the crop approaches Feekes GS 6. However urea may benefit from a urease inhibitor (products containing NBPT) if conditions for volatilization exist for several days after application. These conditions would include an extended dry period with warm drying temperatures (risk increases with temperatures above 70°F) and evaporating winds. Urea applications need at least a half inch rain within 48 hours to minimize volatilization losses unless temperatures remain relatively cool. The urease inhibitor will prevent volatilization for 10 to 14 days with the anticipation of a significant rainfall event during this time.

Broadcasting Red Clover into Wheat

By: [Rory Lewandowski, CCA](#), [Jason Hartschuh, CCA](#), [Mark Sulc](#)

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-07/broadcasting-red-clover-wheat>

Looking at both the calendar and weather forecasts, frost-seeding is no longer a viable option to add red clover into a wheat stand. We can't count on good freeze/thaw cycles to create those honeycomb conditions in the soil that create good seed to soil contact. The option left is to broadcast clover seed over the wheat stand. Successful establishment still depends upon getting good seed/soil contact. Growers need to evaluate soil, weather and stand conditions to determine if a straight broadcast operation is worth their time, effort and expense.

Evaluate the wheat stand. How dense is the stand? Can broadcast clover seed get down to the soil surface? How much soil is visible? A research study at North Carolina State University compared red clover seed broadcasted at 1.5-inch or lower vs. 3-inch high forage. The plots with 3-inch high forage had reduced clover seed germination and establishment. What is your field soil condition? Many soils around the state are saturated. This is not a desirable seeding condition. What is the weather forecast? Unfortunately, the reality for many wheat stands is that the window of opportunity to broadcast red clover is rapidly closing.



For those stands that still have limited top growth, have bare soil between rows, and are on non-saturated soil with good drainage, broadcasting red clover seed may still be an option. Consider the use of broadcasting seed using an ATV to increase timeliness on fields that are wet. Although we do not know of any replicated research trials to support this, some farms have reported success with adding red clover to their liquid nitrogen top-dress applications. A Penn State Extension publication on management of red clover as a cover crop includes the following statement, "An effective method of frost-seeding red clover is to mix the inoculated red clover seed with liquid nitrogen fertilizer and top-dress the mix onto winter small grains in March or early April. It is important to minimize the time that the seed and inoculant are in the fertilizer solution to maintain viability of the seed and bacteria. Therefore, mixing the seed with the fertilizer solution at the field is recommended. Since peat-based Rhizobium may clog up the sprayer, using a Rhizobium solution instead is recommended. Typically, flood nozzles are used, and screens are removed. Make sure the nozzles have an orifice large enough to keep them from becoming clogged up."

References:

<https://extension.psu.edu/management-of-red-clover-as-a-cover-crop>

<https://www.hayandforage.com/article-1193-Thinking-of-feeding-seed-Think-again.html>

The Calving Stall

By: [Steve Boyles](#), OSU Beef Extension Specialist

Source: <https://u.osu.edu/beef/2020/04/01/the-calving-stall/>

Most modern cattlemen have some type of facility for holding or restraining cattle that need assistance at calving. This stall need not be elaborate or expensive, but it should be handy and useful. This article sets forth some of the things to consider before installing such a stall or for evaluating your present facility.

The objective of a calving stall is to provide an environment that is safe and useful to you and your veterinarian when assisting at calving. This stall will generally pay for itself in short order in calves saved and cows treated properly and promptly. Some of the tasks made easier with a calving stall include performing cesarean sections, cleaning a retained placenta, assisting calves presented for birth in the wrong position, milking out

cows, fostering calves and medicating cows requiring follow-up treatments. It allows the producer to quickly estimate the situation and take appropriate action on their own or with professional help.

A good calving stall should meet the following criteria:

- The whole facility should be Easy To Clean
- Readily accessible to cow lots/pastures and vehicles
- Preferably inside a barn
- Easy to get cows into
- Installed to take advantage of cows instincts to return to the herd
- Can be operated by one person
- Be durable to withstand stress
- Be well lit from side to rear
- Have gates on the side that swing out of the way
- Have headgate
 - Avoid choking type head gates
 - Use parallel vertical pipes or planks
 - A quick release head gate

Generally calving assistance may not be ideal in a squeeze chute unless it meets the criteria above. If a cow does go down or a puller is needed, gates and pipes may hinder your getting the job done quickly and safely.

Some producers use only a rope and a quick release hondo. While this may be fine for the docile old girl who has been on the farm or ranch for 18 years, most cows who last that long calve easily by themselves. It's the snakey ones that usually need help. Most cattle would be easier and safer to handle in a calving stall. With less stress on you and the cow, you may no longer need to holler for someone to "quick go call the Vet..."

Building/Construction: Before any excavation begins, the farm owner or the contractor must contact the utility locator service in the area. This simple precaution can save lives, money, and helps to avoid legal and safety issues.

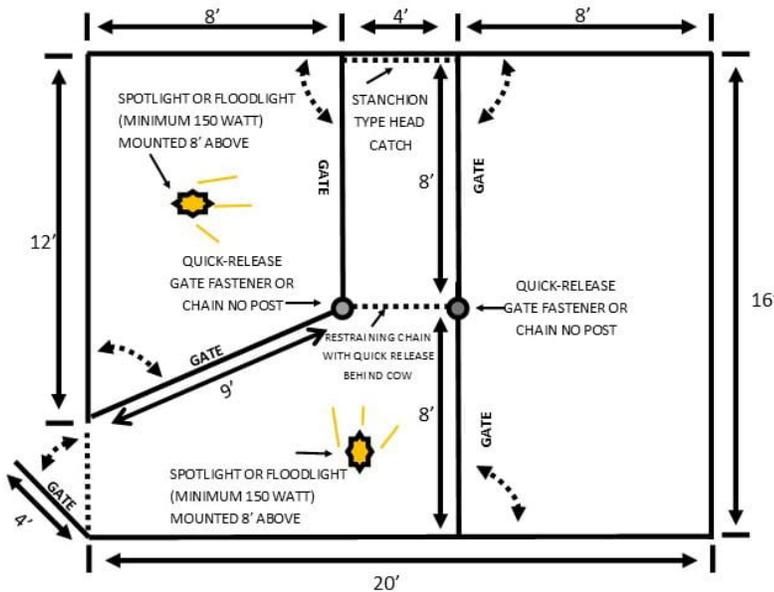
Restraint Systems: The best system for restraining a cow during calving is a headgate that has parallel sides and side gates that swing away. Cows may lie down while you are trying to pull the calf and could become stuck or injured in a squeeze chute or alley way. Avoid the use of V-shaped or scissor-style headgates for calving as they may choke the cow if she lies down. Some of the newer headgates made for calving are wider at the bottom to accommodate a cow lying on its side. Having both side gates able to swing open allows plenty of room to work no matter which side the cow lays down on. Additionally, make sure that gates are long enough to allow you to keep the calf puller on the cow as she lies down and still manipulate the calf puller in the needed direction.

Multiple pens allow for separating cows close to calving. Make sure pens can be easily cleaned of bedding material to control pathogens. Following calving, move new pairs to a pen away from the pregnant cows, to allow for better attention to newborn calves and lessen the risk of calf stealing. As stated previously, facilities need not be elaborate. However, one can install cameras and be close by to a calving supply room and hospital areas.

Pens: Calves, are hardy and normally fare well in Midwestern winters if they are given protection from precipitation, wind, and mud. However, newborn calves that are still wet or are stressed in cold weather may need heat and draft protection for a short time to help them overcome hypothermia. This is seldom needed for healthy calves, even newborns, but may be needed for a short time, such as when there has been a difficult calving, when a cow does not claim her calf, or when calves are weak and don't want to nurse. If you have electricity a heat lap/calf warmer could be used. Portable corral panels can be used to create low-cost calving pens inside of existing shelters. Calving pens should be **at least 10 by 12 feet** in size to allow the cow to move without stepping on the newborn calf. Pens should be bedded with straw and positioned in a draft-free area of the shelter. Large, round or square bales can be used to help protect the pens from drafts if needed. Following

each calving cycle, pens should be cleaned and re-bedded with straw before the next cow is moved into the pen. Plastic or metal tubs from 55-gallon barrels cut in half or empty commercial supplement lick tubs make good temporary waterers.

Paving with Concrete: Concrete provides good footing and is easy to clean but is relatively expensive. It is sold by the cubic yard (27 cubic feet), and price is based on its compressive strength after hardening. Compressive strength ranges from 2,000 pounds per square inch (psi) to 4,000 psi.



Layout of the Calving Stall
Credit to Dr. Vern Anderson,
NDSU for original version of this
diagram

Thickness

- 4 inches
- 5 inches
- 6 inches

Purpose

- Minimal vehicle traffic such as traffic involved in the occasional removal of manure
- Paved feedlot areas and driveways
- Driveways that support heavy traffic such as large grain trucks and feed wagons

All sod and organic matter must be removed before concrete is placed. The subgrade must have uniform soil compaction and moisture content and must be well drained. The top 6 inches of the subgrade should be sand, gravel, or crushed stone to provide for drainage under the slab.

Minimizing Use of Calving Shed: It is important to regularly monitor the body condition score (BCS) of the cows in the herd as a barometer of nutritional adequacy and reproductive efficiency. Having a majority of cows with a body condition score (BCS) of 5 to 6 will decrease the chance of having calving difficulty, optimize colostrum quality, minimize post-calving complications, optimize reproduction, and set the stage for a successful calving season again the following year. When cows are too fleshy at calving, fat accumulates in and around the birth canal and increase the chances of calving difficulty (dystocia). However, when BCS is inadequate, cows may not have enough energy to sustain normal contractions in a prolonged or difficult delivery. Dealing with calving difficulty during daylight hours is always easier than pulling a calf late at night. A management technique discovered by a Canadian Hereford breeder, Gus Konefal, can shift the calving distribution toward daylight calving. The Konefal method involves adjusting the time of day when cows are fed during late gestation. Research at Iowa State University has verified that when cows were fed early in the day

(before noon), only 49.8 percent of the cows calved during daylight hours, while 85 percent of cows fed late in the day (after 5 p.m.) calved during daylight hours.

Take Notice of Winter Annual Weeds in the Landscape

By: Ashley Kulhanek

Source: <https://bygl.osu.edu/index.php/node/1467>

Many among us have found ourselves confined to quarters over the last few weeks. During times like these, I find I have more time to be observant in my yard and garden, resulting in the inevitable shout of, "**WHAT IS THAT????**" Perhaps some of you too are noticing new plants or critters as you soak up the sun on days like today! While out walking my cat, Mew Mew, (a superstar plant-lover in her own right) we got ourselves tangled up in some winter annual weeds, **Hairy bittercress** (*Cardamine hirsuta*) and **Catchweed Bedstraw** (*Galium aparine*).



Hairy Bittercress and Catchweed Bedstraw
Photo: Ashley Kulhanek, OSU Extension

We found both weeds mixed together and alone throughout our landscape beds and even creeping into the lawn. Both weeds are known to thrive in shady, moist areas and take advantage of thinning turf.

CATCHWEED BEDSTRAW (*Galium aparine*)

Let's take a closer look at Catchweed Bedstraw. Even though it is considered a weed, it happens to be one of my favorite plants because it has a fun little trick. (*I know, "who has a favorite weed!"*) Often called, "Velcro®-weed", Catchweed is covered in short hairs that behave like tiny hooks allowing it to cling to other plants, surfaces, animal hair, and YOU. These hairs line the stems, leaves and eventually the seed pods. Other names it can go by include bedstraw, grip grass, and stickywilly. It is a member of the Madder family (Rubiaceae).

One source noted that catchweed grown in full sun may have thicker hooks than that of plants grown in shade, making it more irritating to the skin when gardening and weeding by hand. The fun is really this velcro characteristic. Need a game to play with the kids? Get some landscape weeding out of them while playing pin the "tail" on the donkey. It's great fun. I find this is also a great test for identification too.



Identification is made easy also by catchweed's distinct appearance. The simple lanceolate leaves 1-3" in length are arranged in a whorl of 6 to 8 leaves around a central square stem. The stems can reach 3-6' in length but can't support themselves and will either spread over the ground or climb over other more desirable plant material. This also can make pulling the hand weed somewhat frustrating as the weak stems often snap off instead of pulling up the root.

The plant produces small green to white flowers that are pollinated by flies or beetles. Spherical seed pods (the fruit) contain a single seed 1-4 mm in diameter. The hooked bristles on the pod create a burr, which help it disperse via animal fur or clothing. Individual plants produce 300-400 seeds.

Flowers and therefore SEEDS will begin in late May into June, so NOW is a great time to get out and pull it before it gets too large and creates a tangled mess. As it grows it will stick to itself and topple over other plants, shading them out and creating a pretty tangled mess to weed through, so pull it now! It should be noted that some people with sensitive skin can have an allergic



reaction to this plant causing red itchy rash on the skin which can last several days. You can protect yourself by wearing gloves and long sleeves when hunting down this plant.

Hairy Bittercress (*Cardamine hirsuta*)

Now onto Hairy bittercress. This weed has a cool trick too! Its seed pods EXPLODE when touched. A very effective seed dispersal mechanism. Now, unlike playing around sticking Catchweed to your shirt... you might not want to encourage those seeds exploding as they will become next year's problem!

Hairy bittercress is another winter annual weed and is a member of the Brassica family (Brassicaceae). This flowering bittercress we are seeing NOW actually germinated last October and grew into a small basal rosette that hung out through winter. When spring conditions hit, bittercress resumes growth and flowers in early spring to set seeds for the next season.

The plant has pinnately compound leaves with 4-8 leaflets on the rachis. Hairy Bittercress flowers grow in clusters with each white flower having four tiny petals, a key identifier. (Hairy Bittercress is often confused with Common Chickweed, *Cerastium arvense*, another winter annual whose flowers have 5 white petals, "deeply lobed" giving the appearance of 10 petals.)

It takes only 14 to 28 days after flowering to develop the thin cylindrical seed pods known as **SILIQUES**. These will stick up past the flower. As the fruit matures and turn brown, they will begin to explode to disperse their seeds with some reports stating that seeds can fly up to 15 feet. This gives rise to several other common names for this plant: Flick Weed and Shot Weed. Each silique can contain up to 20 seeds and a single plant can produce up to 5000 seeds over its lifetime with these seeds being viable for several years.

This plant is not without its virtues. It is edible and is reported to taste like arugula. So, while you are "weeding" you can be harvesting greens for dinner. Just be sure that the area has not been treated with any pesticides nor been visited by any critters, and that your identification is spot on. It is also a food source for two butterflies the spring azure (*Celatrina landon*) and the falcate orangetip (*Anthocharis midea*).

As winter annuals, both hairy bittercress and catchweed can be managed by preventing them going to seed through pulling, hoeing, or mowing. Chemical control is an option as well. For winter annuals, this is most efficacious if applied in summer-fall to prevent seeds from germinating. Catching them now when they are small and, hopefully, before they've spread, is the best option.

Remember: Pulled weeds left in the yard may continue to develop and produce seeds. Always dispose of weeds properly to ensure management. Use caution when adding plant material to your compost piles. Most



home compost piles do not reach a high enough temperature to destroy weed seeds. Using the finished compost could then result in the dispersal of weed seeds that were not adequately heated to kill them off.

More Information

Bedstraw:

<https://wimastergardener.org/article/catchweed-bedstraw-galium-aparine/>

https://www.canr.msu.edu/news/bedstraw_is_stuck_on_you

bittercress

<https://extension.tennessee.edu/publications/Documents/W399.pdf>

<https://plants.ces.ncsu.edu/plants/cardamine-hirsuta/>

David's March 25 Beacon News Column

By: David Marrison, Extension Educator

Originally Published in The Beacon Newspaper on March 25, 2020

Hello Coshocton County! We have all heard the phrases, “hindsight is 2020” or “I wish I had 2020 vision.” We all agree that it is easier to understand something after it has already happened. Can you imagine what our retrospect vision will be for the year 2020?

The past few weeks have presented all of us with the real and difficult challenges related to the coronavirus outbreak better known as COVID-19. As are many, we at OSU Extension have been monitoring the situation and trying to adjust to this new challenge. As a result, we have postponed many of our upcoming programs and our office is currently closed to walk-in clientele.

While our office is physically closed, our staff is still working to serve you! We can be reached by calling the Extension office at 740-622-2265. I can also be contacted via email at marrison.2@osu.edu Make sure to check the Extension website at Coshocton.osu.edu for education material and for the latest updates.

One thing coronavirus outbreak has not slowed down is our local farmers. In fact, social distancing is not a new thing to farmers. We have lots of space on our farms to be away from others. Biosecurity is also something that has been practiced for years by farmers to prevent diseases from being transmitted from one barn to the next. This is exactly why dairy calves are raised in personal calf hutches and why visitors are not allowed in our swine or poultry operations. It is all about not spreading diseases.

With regards to coronavirus, we in agriculture should be thinking on how we can help slow the spread. So what can a farm or agricultural business do to help?

Wash – Your - Hands. Obviously, make plenty of hand washing stations and/or containers of sanitizer available to your employees. This includes in barns, offices, trucks, machinery shops, and tractors. Hand washing is one of the best ways to prevent the spread of the virus.

Help to Flatten the Curve. One of the wonderful things about living in Coshocton County is how we function as a community. One of the struggles of this pandemic is that we cannot gather as a community. Isolation will be the key, so now is the time to retreat into the farm shop and work on equipment. If a parts-run is needed, be quick and don't hang around to shoot the breeze. But don't forget about your neighbors. Instead of seeing each other in person, pick up the phone and call them!

Review Your Sick Leave Policy. Companies should encourage any employee showing signs of illness to stay home to prevent the spread of disease to healthy workers. This might be a time to analyze whether a temporary increase in available sick leave is appropriate. What is your back-up plan if multiple members of your family or staff become ill? I would encourage you to have a Plan B—and if that does not work, remember there are 26 letters in the alphabet.

Brace for Social Fatigue. The past few weeks have increased our adrenalin. We have been glued to the news and have been scurrying around to adjust to the restrictions placed by our government and businesses to help fight this pandemic. There will be a day, and some of us may be already there, that we will hit the proverbial wall. Emotions will continue to roll up and down. Keep talking, get outside for more fresh air, and remember this pandemic needs to be viewed as a marathon, not a sprint. Pace is the key.

Take a deep breath. We as farmers are prepared for this. The delayed harvest of 2018 and the wet year of 2019 has built our resilience. We, as a community, will get through this virus. Take a deep breath, enjoy quiet time with family, and know that the freshness of spring planting season is not that far away!

In closing, I would like to leave you with a quote from Fauja Singh “Living life is like running a marathon. It takes a lot of courage and tenacity to keep going until the end.” Have a good and safe day!

Upcoming Programs

- ~~Backyard Fruit Production Workshop: April 28 Canceled~~
- ~~Mortality Composting Workshop—May 4 Canceled~~
- Master Gardener Plant Sale: June 6
- Summer Pasture Walk: July 28
- Summer Pasture Walk: August 25

**Check out upcoming programs
at: go.osu.edu/coshoctonevents**