


 **6 OLCA Lobbyist**  
The Batchelder Company  
partners with OLCA

 **13 Early Season Predictions:**  
Methods to Predict Weed  
Emergence

 **18 Red Thread**  
A Disease Profile

spring 2020 / [www.ohiolawncare.org](http://www.ohiolawncare.org)

# OLCANNEWS

IT PAYS TO BE GREEN



## GREEN INDUSTRY COVID-19 INFORMATION

On March 23, 2020 an order issued by the Governor restricting the continued operation of all non-essential businesses in the state became effective. The order will remain in effect until April 6, 2020. Ohio sites the guidance provided by the Department of Homeland Security, Memorandum on Identification of Essential Critical Infrastructure Workers During COVID-19 Response in determining which industries are “essential” and can therefore remain in operation; but Ohio also enhances the list.

In addition, the National Association of Landscape’s position identifies the role the landscape industry is playing to protect other essential critical workers while also protecting public health and safety.

## FROM YOUR PRESIDENT, Rob Edwards, Turfware



During these unprecedented times, I sit here writing this letter and realizing that after 28 years in the industry, you are never quite prepared for what may come at

you. We never thought we would be glued to our tv's waiting to see if the Governor would allow us to work, and at the same time wondering if we can live up to our promises to our customers. We all are trying to decipher what exactly "essential and non-essential" means for us. And most importantly, can we safely have our staff show up for work. All these thoughts are new to me as I am sure they are also new to you.

The OLCA board along with Ohio Turfgrass Foundation and the Ohio SportsTurf Managers Association has worked tirelessly over the last few weeks to not only understand how COVID-19 effects our industry, but how our members should navigate their day to day activities. We have learned a lot, and we have adjusted along the way. Currently we sit here with the understanding that the Ohio Green Industry can work if they follow the social safe distancing procedure outlined by the OSHA/HHS guidance.

There's still a lot of work to do for our members. Who knows what we will be faced with next time? You can expect big changes being made within the Ohio Lawn Care Association. We are constantly evolving and trying to increase the value and information to our members. If you haven't done so lately, please go to the OLCA website, you will find endless amounts of information to help maximize your membership. Pay special attention to our Workers Compensation Group Rating Program.

And finally, I would like to thank Joel Smith for his contribution as the 2019 OLCA President and the rest of the Board Members who continually give up what little time they do have to give back to a fantastic industry.

## FROM YOUR EXECUTIVE DIRECTOR, Mark Bennett, CAE, IOM



In my last Executive Director's message, I talked about all of the tools lawn care professionals could utilize from OLCA to prepare for 2020. I think it's safe to say at this point, that none of us were truly prepared for what 2020 has become.

However, in times of crisis, true leadership rises to the top. Ohio has fared better than other states when it comes to the COVID-19 virus. It was the decisive actions that Governor DeWine took early on that keeps Ohio ranked about 17th in the country in terms of cases and deaths while having the 7th largest population.

As the virus took hold in the United States, OLCA was in the midst of forming an advocacy coalition with the Ohio Turfgrass Foundation (OTF) and the Ohio Sports Turf Managers Association (OSTMA) to strengthen the voice of the lawn care and turfgrass industries at the Ohio Statehouse. Chad Hawley and Troy Judy of The Batchelder Company have been retained to represent the daily interests of lawn care and turfgrass professionals in the Ohio General Assembly. Additionally, OLCA continues to be a strong partner in the Ohio Professional Applicators for Responsible Regulation.

Days before the stay-at-home executive order was enacted, OLCA, along with OTF and OSTMA, lobbied the Governor to allow the green industries to be considered essential businesses as they benefit the public by reducing pests and treating noxious weeds. Advocacy, something many members may not think about on a daily basis, is a critical member benefit that may make the difference as to whether lawn care professionals can continue to work unimpeded.

The Governor's initial order created some confusion as to whether green industry businesses were considered essential. A few county health officials even stated publicly that lawn care specifically was not essential. After conversations with OLCA members and leadership, all of these counties issued statements that lawn care was essential as long as the work could be accomplished while meeting the state's physical distancing requirements.

This crisis has upended our entire world – from how we conduct business to how to shop for groceries to how we vote. Sporting events, concerts and festivals have been canceled across the board. Business as usual will change and change dramatically. But it will also create opportunities. We will get through this and we will be better. Thank you continued support of OLCA and we will continue to advocate for your interests.

As always, feel free to contact me at 800-510-5296 ext. 1 or email [mark@bennett-management-llc.com](mailto:mark@bennett-management-llc.com) with your questions or concerns.

# › Real Results – Real Savings

*The Ohio Lawn Care Association endorses CareWorks Comp because they help employers maximize their premium savings. CareWorks Comp analyzes each employer's unique claim and premium history to find the highest level of savings in all available workers' compensation programs.*

## Why CareWorks Comp

### PARTNER IN CONTROLLING COSTS

CareWorks Comp saves employers millions of dollars each year, becoming a lasting partner and providing a comprehensive cost management approach.

They are committed to understanding our members' challenges and to delivering claims excellence and providing quality, sound decision making and consistency.

CareWorks Comp helps employers determine the best rating or discount program available, whether it's group rating, BWC deductible, 100% EM Cap or any other BWC program available, helping you identify, evaluate and reduce your business risks to achieve premium discounts and refunds.

### START SAVING NOW!

For a no-cost, no-obligation analysis of your potential savings, please complete our online "Temporary Authorization to Review Information Form" at: [www.careworks.com/groupratingapplication/olca](http://www.careworks.com/groupratingapplication/olca)

## Member Programs

### GROUP RATING

- Nearly 100,000 Ohio employers are currently participating in group rating
- CareWorks Comp is the only group rating program endorsed by the Ohio Lawn Care Association
- On average, for every dollar spent on fees, clients saved \$11.00 in premium, a 1000% return on investment

### GROUP RETROSPECTIVE RATING

- Rebates are based on the results of employer's workplace safety and cost control efforts
- CareWorks Comp has created two tiers with different projected savings levels for each industry group
- CareWorks Comp group retrospective programs have returned \$335 million in premium refunds

### UNEMPLOYMENT COMPENSATION

- CareWorks Comp's comprehensive unemployment compensation program delivers unique, customized solutions to help employers reduce and control their unemployment taxes



## A GRATEFUL EMBRACE

On November 7, OLCA, OTF, ONLA and the Ohio Western Reserve Cemetery in Rittman, OH will partake in the annual community service of beautifying the hallowed grounds at the Dayton National Veterans Cemetery in Dayton, OH and Ohio Western Reserve Cemetery in Rittman, OH. RSVP to attend by visiting the OLCA website at [www.OhioLawnCare.org/](http://www.OhioLawnCare.org/) and registering online. If you have any questions, please contact OLCA at 800-510-5296.



**GRATEFUL EMBRACE**  
**November 7, 2020**  
**Dayton National Cemetery, Dayton, Ohio**  
**The Ohio Western Reserve Cemetery, Rittman, Ohio**

We invite all lawn care and landscape professionals to join us on Saturday, November 7 at the Dayton National Cemetery in Dayton and/or Ohio Western Reserve Cemetery in Rittman for "A Grateful Embrace". Show your support to our soldiers and veterans by giving back to those who gave all. Please fill out the form below and email it to [lori@bennett-management-llc.com](mailto:lori@bennett-management-llc.com) by November 2.

Here is a brief summary of the day's events:

- Arrival and check in times for each event will be 7:45 am
- Donuts and coffee will be served and you will be assigned your area.
- We will have a short ceremony at 8:30 am at each venue capturing the spirit and humbleness of the event that includes guest speakers, Honor Guard and Benediction.
- Work commences at the conclusion of the ceremony
- Most of the materials (fertilizer) will be provided through the generous donations of our industry suppliers.

However, we are asking that those who can donate 5 bags of fertilizer to the cause.

- You'll need to bring spreaders, blowers and all the manpower you can muster to help us get 160 acres of turf fertilized on that day.
- Lunch is also provided!

Don't miss out on this unique opportunity to honor those men, women and their families, both living and deceased, who provided the ultimate sacrifice that we might remain a free nation.

We promise that after participating in the Grateful Embrace, you will never be the same again – just ask anyone that has participated in this event!

NAME: \_\_\_\_\_ COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE ZIP: \_\_\_\_\_

PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

LOCATION: \_\_\_ DAYTON \_\_\_ RITTMAN NUMBER OF PEOPLE ATTENDING: \_\_\_\_\_

EQUIPMENT YOU CAN BRING:

(Spreaders, Blowers, Ride-ons, Brooms, etc.)

ITEMS TO DONATE: \_\_\_\_\_



**Ohio Senate**  
Senate Building Room  
128, First Floor Columbus,  
Ohio 43215 (614)  
466-8076  
sd20@ohiosenate.gov

**Committees:**  
Agriculture & Natural Resources, Vice Chair  
General Government & Agency Review  
Local Government, Public Safety and Veterans Affairs Ways  
& Means  
**Special Appointments:**  
Coal Technical Advisory Committee  
Tax Expenditure Review Committee  
Dental Loan Advisory Board

**Tim Schaffer**  
20th District

April 1, 2020

Honorable Mike DeWine, Governor  
State of Ohio  
Riffe Center for the Arts & Government  
77 South High Street, 30th Floor  
Columbus, Ohio 43215

Dear Governor DeWine,

Thank you for working to protect the health of all Ohioans. I know it has not been easy for you to wade into the unknown, but it is nice to see Ohio lead other states and countries in learning how to beat this unknown "enemy."

I am contacting you for clarification on whether lawn care operators are considered an essential business. While the industry can make an argument that it is essential under Section 12(k) "Critical Trades," it does not appear to be completely clear:

Critical trades. Building and Construction Tradesmen and Tradeswomen, and other trades including but not limited to plumbers, electricians, exterminators, cleaning and janitorial staff for commercial and governmental properties, security staff, operating engineers, HVAC, painting, moving and relocation services, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of residences, Essential Activities, and Essential Businesses and Operations;

Many county health departments have made their own differing interpretations. It is difficult for lawn care operators, most of whom are small businesses, to continue operations and abide by differing county orders, especially when they serve customers in multiple counties.

The lawn care, turfgrass maintenance and landscape industry professionals are protectors of public health, performing essential treatments and mowing to lawns and green spaces to reduce the transmission of dangerous and deadly diseases through pests like mosquitoes, ticks, fleas and rodents. Additionally, they treat noxious weeds that can cause hay fever and cause further issues for those suffering from asthma--one of the high risk groups for COVID-19. These measures are critical to keep additional residents out of our state's health care system as the number of COVID-19 cases and hospitalizations rise on a daily basis. Additionally:

- Healthy turfgrass means a healthy environment. Studies revealed that healthy turf filters pollutants from rainfall that prevents them from running off into drinking water sources.
- Spring is a "make or break" time for the plants the industry manages. Similar to a farmer planting seeds in the spring for fall harvest, neglecting turfgrass care in the spring will cause months or longer to restore to full health and functionality.
- The activities necessary for these professionals to operate are able to be completed by an individual or pairing of individuals to comply with current physical distancing recommendations.

I would appreciate it if the Administration could clarify whether lawn care operators are an essential business so we have uniformity across the state and allow these professionals to continue to protect the health and safety of our state's residents unimpeded.

Thank you again for your leadership and responsiveness to the needs of Ohioans!

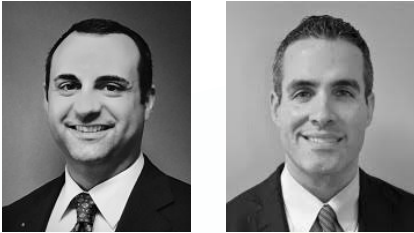
Sincerely,

A handwritten signature in black ink that reads "Tim Schaffer".

**Senator Tim Schaffer** 20th  
Ohio Senate District

## OLCA LOBBYIST

The Batchelder Company partners with the OLCA on Ohio's forefront of lobbying and legislative advocacy.



We here at the Batchelder Company are incredibly eager to begin our working relationship with the OLCA and the OTF on Ohio's forefront of lobbying and legislative advocacy. Our team, comprised of Former Ohio House Speaker Bill Batchelder, Former State Representative Jim Buchy, Troy Judy, Chad Hawley, and Jack Brubaker bring together our combined expertise of state level public policy and work ethic to meet the goals of each one of our clients.

The current times before us will present their own unknown challenges and effects on every facet of government

and how we choose to live our daily lives. As with any new challenge, those who succeed will be the ones who learn to adapt to the new climate around us, and best communicate the needs of an industry to the audience of policymakers.

Ohio's Green services industry supplies the hard work and know-how necessary to maintain our society's need for places of recreation, aesthetic leisure, and environmental health; all while dealing with whatever pressures that government regulation and mother nature throw at it. Our goal is to make the voices of Ohio's green industry professionals heard to those decision makers who might not hear them otherwise.

Here at the Batchelder Company, we rely on our 40 plus years of experience and knowledge of the people and practices that govern our state. From

ideas in the conference room to changing the Ohio Revised Code, we seek to best guide and communicate the purpose of each step along the way. Our firm's guiding principles of honesty, integrity, and straightforwardness, help us guide our clients to the most realistic and beneficial outcomes for their unique goals.

In these tough times, we are excited to meet the challenges ahead on your behalf. We look forward to working with you.

Sincerely,  
The Batch Co. Team



## IT'S GOOD BUSINESS TO DO BUSINESS WITH OLCA SPONSORS

OLCA offers great annual sponsorship packages to supplier members who are interested in constant visibility while supporting Ohio's lawn care operators. See the Sponsorship Application in this newsletter for details on what each level of sponsorship includes. OLCA Members are encouraged to support the sponsors who support the organization.



### OLCA THANKS THE FOLLOWING 2020 SPONSORS:

Turfware – Gold    Advanced Turf Solutions – Silver  
Nufarm – Bronze    Target Specialty – Bronze



## Ohio Lawn Care Association Sponsorship Program

Company Name \_\_\_\_\_

Main Contact: Name \_\_\_\_\_

**Gold Level Sponsorship - PRICE = \$1,500** (more than 25% savings)

Includes:

- Full Page Ad (black & white or color) in 2 newsletters (\$300 value)
- 5 minutes upfront face time with attendees at both field days and annual meeting to promote company and new products (\$100 value)
- Event Sponsor of both Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts and equipment/product display space (\$600 value)
- Main Sponsor for podcast.
- Complimentary Registration to both Summer Seminars (\$100 value)
- Annual Meeting Sponsor – Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

**Silver Level Sponsorship - PRICE = \$1,200** (more than 30% savings)

Includes:

- Half Page Ad (black & white or color) in 2 newsletters (\$150 value)
- Event Sponsor of 2 Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts, 5 minutes to talk about your product at lunch and equipment demonstration space (\$600 value)
- Complimentary Registration to 2 Summer Seminars (\$100 value)
- Annual Meeting Sponsors – Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

**Bronze Level Sponsorship - PRICE = \$850** (more than 40% savings)

Includes:

- Event Sponsor of 2 Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts, 5 minutes to talk about your product at lunch and equipment demonstration space (\$600 value)
- Annual Meeting Sponsors – Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

To confirm your participation as a 2020 OLCA sponsor, please check the appropriate box above and return to:

**OLCA**  
305 W Nationwide Blvd.  
Columbus, Ohio 43215  
Phone: 800-510-5296  
[www.OhioLawnCare.org](http://www.OhioLawnCare.org)

**PAYMENT:**

Check (Make check payable to **OLCA**)

To pay by credit card, please visit [www.OLCA.org](http://www.OLCA.org) and **Sign In** (located in the upper right corner). OLCA currently accepts the following credit cards: Discover, MasterCard and VISA. OLCA is unable to accept credit cards by phone or by mail.

If you do not remember your Username or Password, use the [Reset Your Password](#) on the OLCA web site by entering the email address associated with your member record. Please contact the OLCA office at 800-510-5296 if you have any questions or have trouble logging in. We appreciate your support of the Ohio Lawn Care Association.

## THE OHIO STATE UNIVERSITY TURFGRASS TEAM

# TOP 10 MAINTENANCE PRACTICES TO FOCUS ON IN EARLY SPRING IN OHIO, BASED ON GROUNDS ACREAGE AND BUDGET

Top maintenance lawncare practices to focus on in early spring in Ohio during the Covid19 outbreak.

1. Communicate with clientele so that everyone is aware of the reduced maintenance practices and how that may affect aesthetics.
2. Ensure all staff are carrying appropriate documentation for travel etc.,
3. Mowing – southern & central parts of the state have started mowing. Northern parts of Ohio currently have limited growth. Essential maintenance should focus on priority areas. Mowing heights should be raised to the maximum height for that turf species (generally 3-4") to reduce stress on turf. Mowing can then be reduced to 1x per week or less.
4. Make sure fuel tanks & containers are full, so there's adequate fuel for operations once restrictions are lifted.
5. Avoid quick -release sources of nitrogen that will increase growth & therefore mowing frequency. Apply fertilizers that are at least 30-50% slow release. On high cut turf, this application could be delayed until May.
6. Keep facilities safe: Lock tools away, etc.
7. Preemergence herbicide applications should be made based on GDD tracker recommendations for the specific pests, mainly crabgrass, only on areas that have had this problem in the past.
8. If there is adequate rain, shut the irrigation system off. This is particularly important if no one is on site to notice breaks/leaks etc. It also slows excessive turf growth.
9. Clean up should only occur where drains need to be cleared to reduce potential issues with flooding

Refer to [Ohio Turfgrass Foundation](#) and [Ohio Lawncare Association](#) website for more pertinent documentation regarding benefits of turf, authorization to travel etc., for further information.



Image by Bryan Clayton from Pixabay





## NITROGEN AND TURFGRASS

Dave Gardner,  
The Ohio State University

Depending on which plant physiology textbook you read there are about 18 elements that have been classified as essential to plant growth. All of them are equally important for, by definition, without them the life cycle of the plant could not be completed. However, many of these 18 elements are not applied as a part of our routine fertilization programs on turfgrass. Some of them are not minerals (carbon, hydrogen and oxygen). Many of them in native soil are assumed to, in most cases, be present in adequate quantities such that applying them is only justified if a soil test indicates. These include the macronutrients calcium, magnesium and sulfur plus the micronutrients boron, chlorine, copper, iron manganese, molybdenum, nickel, sodium, zinc. Even phosphorus and potassium should technically be applied only when a soil test indicates need.

All of the attention in this article is given to nitrogen, and for good reasons. 1) It is one of only two elements whose application results in an obvious visible agronomic response from the grass (iron is the other). 2) We do not have a soil test for nitrogen therefore; we make applications based on some sort of "schedule" which is affected by many different factors. 3) There are concerns about nitrogen in the environment and applications to turfgrass have been implicated as potentially contributing to this problem. Because of this, 4) while not yet in Ohio, there are parts of the country where the application of nitrogen to turfgrass is restricted (type of product, when to apply, amount that can be applied). In Ohio, you currently have to have a certificate to apply nitrogen to more than 50 acres of agriculture production that is grown primarily for sale. It is always possible this could be expanded to include turfgrass at some point in the future.

### Why is Nitrogen Important?

If we look at the composition of a typical plant we see that a majority of its weight (just under 90%) is composed of the atoms carbon, hydrogen and oxygen. These elements are parts of both structural (i.e. cell walls) and nonstructural

(i.e. sugars) carbohydrates. That means that the other 15 elements deemed essential comprise the remaining just over 10% of the weight of the plant. By far the next most abundant is nitrogen at about 4.6%. It is a component of amino acids, proteins, chlorophyll, nucleic acids, and co-enzymes. Thus it serves many biological functions within the plant. Because of this the level of nitrogen affects many things including: root growth, shoot growth, turfgrass stand density, color, recuperative potential and disease proneness.

### Why is Nitrogen a Potential Problem?

By the 1990's most folks in the industry were keenly aware of the controversies associated with the use of some of our pesticides for turfgrass management. At that time though, not as much attention was paid to whether our fertility management practices might contribute to unwanted environmental contamination. But, that was then. In the present we know that over application or misapplication of certain nutrients can and does lead to unwanted environmental contamination. The extent of the contribution by turfgrass management practices is debated. Nonetheless, turfgrass management is implicated. At first, all of the attention was on phosphorus, due to its contribution to eutrophication of lakes (more on this in next month's issue).

Turfgrass scientists have also studied whether there could be unwanted movement of nitrogen from a turfgrass system. This work became very complex because the fate of nitrogen in a plant-soil system is very complicated, with nitrogen existing in many different forms (Figure 1). There was some concern about the potential for fertilizer nitrogen to leach out of turfgrass in the form of nitrate nitrogen. But, at that time many turfgrass researchers were interested in the fate of applied nitrogen in order to understand and make nitrogen use more efficient in turf. For example, they wanted to understand if gaseous loss of nitrogen occurred and if it did, to what extent. Many of the initial studies that were done during the 1980's and early 1990's were encouraging from an environmental standpoint.

continued on page 10

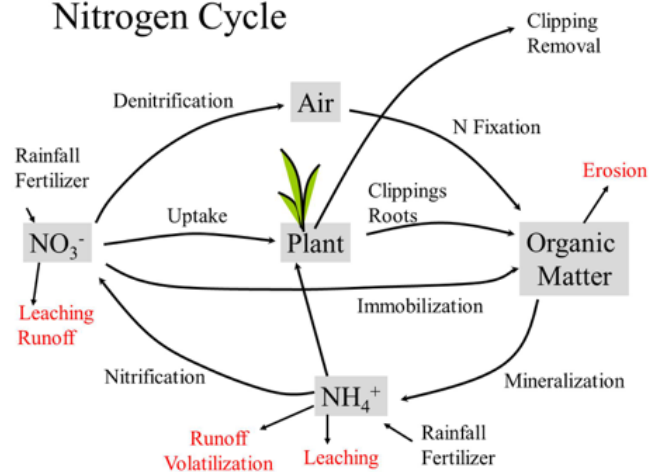
What was found was that if nitrogen was properly applied to turfgrass then it was immobilized very quickly and very little of it was detected in water that leached out of the soil profile. As a result of these studies, it was thought that turfgrass was not a significant contributor to nitrate leaching.

What many of these studies shared in common was that they were conducted on newly established turfgrass. In newly established turfgrass much of the nitrate nitrogen is quickly converted into organic forms via immobilization. If the nitrogen is immobilized then it can't leach. These conversions between different nitrogen forms are governed by microbial populations in the soil. Over time, however, the balance of the different forms of nitrogen in the soil shifts and on older turfgrass systems, it was found that fertilizer nitrogen can in fact leach out of the system. One of the first projects that shed light on this was a very long term project conducted at Michigan State University. Using the same lysimeter plots where it was first concluded that nitrate leaching might not be an issue, researchers began to find excessive levels of nitrate in the leachate after about a 10 year period. The good news from this project is that it was also found that the level of nitrate detected in the leachate could be significantly reduced simply by applying less nitrogen. Therefore, it is recommended that on older turfgrass stands the amount of nitrogen applied should be reduced in order to reduce leaching potential. This should not result in a decrease in turfgrass quality because the rest of the nitrogen is supplied from the nitrogen that had been tied up in organic forms becoming available again through a process called mineralization (essentially the reverse of immobilization).

Gaseous loss of nitrogen through volatilization can be substantial. However, this is not as much of an environmental concern since the end product of this avenue of loss is nitrogen gas and most of the atmosphere is nitrogen. Gaseous loss of nitrogen is more of an economic consideration. Indeed there is research that shows that gaseous loss of nitrogen can be as high as 25% of what was applied. Form of nitrogen had a significant impact on the amount of gaseous loss. Runoff losses of nitrate and ammonia can also be substantial. What happens is nitrate or ammoniacal nitrogen dissolved in water moves off the turf during an excessive rainfall. Practices that improve the infiltration capacity of the soil, such as core cultivation and vertical mowing can reduce runoff losses substantially. The goal is to get the nitrogen to the roots (not above them to be lost to runoff or below them to be lost to leaching).

The main culprit for environmental contamination with nitrogen is nitrate leaching. Several states have placed restrictions on the application of nitrogen in order to

## Nitrogen Cycle



**Figure 1.** The nitrogen cycle in turfgrass is very complicated and the conversions between different forms are governed by microbial activity. Because of this, a soil test for nitrogen status is not practical. However, understanding the dynamics that affect the nitrogen cycle can help us to prevent loss of nitrate nitrogen into the environment.

reduce leaching losses. Some of these laws have produced positive results. The law in New Jersey, for example, requires a higher percentage of slow release forms of nitrogen be applied and this has significantly improved turfgrass quality. The reason is that on New Jersey's predominately sandy soils, application of slow release nitrogen results in more uptake by the turf and less loss to leaching. If you live in a state that regulates applications of nitrogen, then these laws will no doubt have an effect on how you apply fertilizer. However, if you don't live in one of these areas you are probably applying nitrogen to your turf according to some sort of "schedule" that's based on research data. The difficulty with determining how much nitrogen to apply and when is that there is no practical soil test to measure nitrogen status in the soil. You can test for ammoniacal nitrogen and nitrate nitrogen but studies have shown that these concentrations can vary literally over a period of days. In other words, by the time the soil test lab tells you the amount of nitrate or ammonium in the soil it has probably changed. Knowledge of these soil test values is not useful for predicating your turfgrass nitrogen needs.

### Apply Nitrogen to Your Turf, not to the Environment

Nitrogen is important for plant growth. It is also a potential problem if it is not applied correctly. Thus, the goal of your nitrogen fertility program should be to supply the turf with exactly the amount of nitrogen it needs, in timely manner, while avoiding excess that is both costly and potentially harmful to the environment.

Kentucky bluegrass, perennial ryegrass and bermudagrass require more annual nitrogen than tall fescue. In addition, the requirements can vary significantly among cultivars of the same species. Improved cultivars will require more fertilizer compared to the common varieties. Mowing and

irrigation management also have a big impact on nitrogen needs. Using a large athletic facility as an example: the turf that is mowed shorter (your game day field) will require more nitrogen compared to the surrounding areas or fields that are mowed higher. Similarly, if irrigation is optimized the fertility requirements will be higher. Turf that is subject to more traffic stress will also require more nitrogen. The point to consider here is that if you have a large facility the nitrogen needs of the game day fields, the practice fields and the surrounding areas are all a bit different.

You should test your soil in order to determine fertility needs. As I've said, the test will not give information about nitrogen requirements but it will help to determine how you should apply nitrogen. The number of interest is the cation exchange capacity or CEC. This is a measure of the number of exchange sites or the nutrient carrying capacity of your soil. Another way to think of it is as a measure of potential fertility. If you CEC is low, such as the case if you have a sandy soil, then you will want to apply less nitrogen but more often. If your CEC is high, typical of a clay soil, then you can apply more nitrogen less often.

On medium maintenance surfaces with Kentucky bluegrass or perennial ryegrass (lawns, golf course roughs, and turf around an athletic facility) where leaching of nitrate is not of concern, a generic application schedule is:

Month	lbs N / 1000 ft <sup>2</sup>	Comments
April	0-0.5	May not be needed if late season N was applied
May/Early June	1.0	
July	0-0.5	Only needed if turf is irrigated and off color
Mid-August	1.0	
Mid-September	1.0	
November	1.5	Application at this time may be prohibited in your location. If so, consider applying 0.5 lbs N in Mid-October.

This is a very generic schedule, however. On a sand based sports field or a putting green that is mowed shorter you would want to apply less nitrogen but more often. If it is a low maintenance turf surface then you might only make one or two applications per year. These applications

would typically be in May to promote spring green up and in autumn to promote root and rhizome growth.

Other adjustments to this generic schedule should take into account your location, not only because of differences in grass growth during the year (the season and thus the fertility needs of the turf are different in warmer areas) but also if there are any laws or restrictions on fertilizer applications at any given time of the year.

This brings us to the topic of late season fertilization. Much research has been done that concludes that this application is both the most beneficial to the turf and yet the most potentially harmful to the environment from nitrate leaching and runoff. The recommendation for late season nitrogen applications had typically been to use a 100% water soluble source applied at about 1-1.5 lbs N / 1000 ft<sup>2</sup> after top growth ceases but the grass is still green and before the soil freezes. This has been shown to provide many benefits to the turf including more production of root tissue (either in the fall or in early spring) and less potential for excessive shoot growth in the spring. As a result, carbohydrate reserves are not depleted in the plant and it is more resistant to summer time stress.

In response to environmental concerns, more recent research has shown that this late fall application, where permitted and recommended, can include slow release nitrogen, which is much less likely to leach or runoff. In locations where late fall fertilization is either not recommended (for example, on a sand based field) or not permitted, you may want to consider applying 0.5 lbs N/1000 ft<sup>2</sup> of a water soluble nitrogen source in mid-October instead. The bottom line is that late fall fertility recommendations can vary considerably by location.

A more detailed discussion of the different sources of nitrogen used in fertilizers and the agronomic advantages and disadvantages of them is a topic for another article. In conclusion, as important as nitrogen is to the health of the turf surface, it is also important that nitrogen be applied correctly. In this way you help to protect the environment. Another upside of making your nitrogen use more efficient is that you will also help protect your budget in the process.

## THE TURFWARE DIFFERENCE

▶ **ZERO PARTS COSTS!**

*For 2 years!* We include with each machine the parts we know wear out. Other than tire failures and operator abuse you are all set.

▶ **ZERO BELTS!**

*Belts are good for holding up pants! They don't belong on a lawn fertilizer spreader!*

▶ **ZERO PULLEYS!**

*We all know fertilizer, dust and moisture create problems with Pulleys! Our machines have ZERO!*

▶ **ZERO DANGEROUS CASTER WHEELS!**

*We all know this is a hill stability safety issue!*

▶ **EASY STEERING & RIDING**

▶ **SIMPLE TO MAINTAIN**

*Easy access and care.*

▶ **RUGGED CONSTRUCTION**

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▶ **PROVEN HONDA® ELECTRIC START ENGINE**

*3 year Full Manufactures Warranty.*

▶ **FINGERTIP CONTROL REAR WHEEL HYDROSTATIC DRIVE**

*Great for hill climbing traction. No Gear Drive Transaxle to replace.*

▶ **SIMPLE CONTROLS**

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## EARLY SEASON PREDICTIONS: METHODS TO PREDICT WEED EMERGENCE

Kyle Daniel, Nursery Representative  
for IAA and Nursery and Landscape  
Specialist at Purdue University

Fill in the blank: Apply crabgrass preemergence herbicide when \_\_\_\_\_ is in bloom.

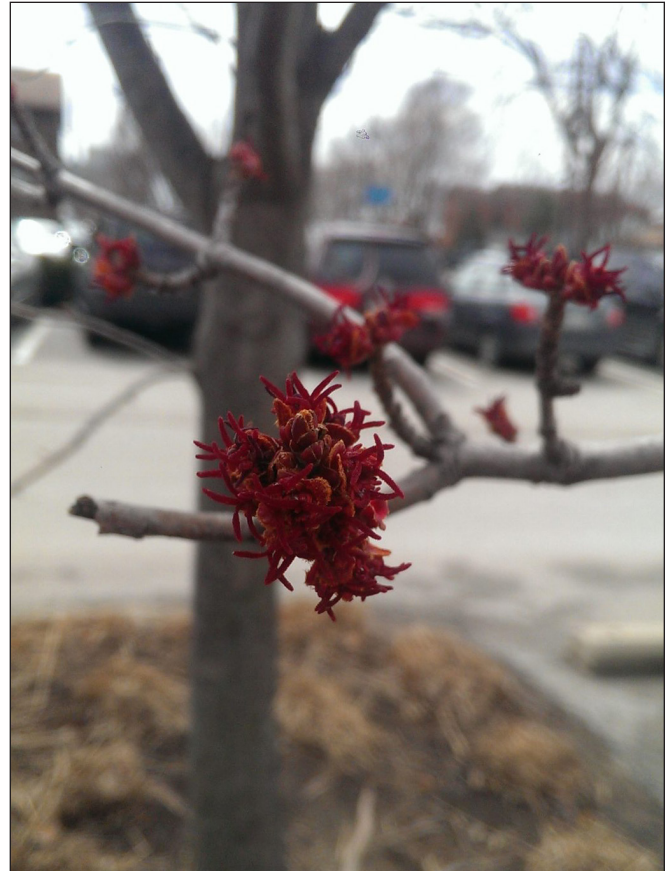
If you said forsythia, you would be correct. Most of us have been told the answer to this for many years, but have you ever thought to yourself, 'Is it true?'

There are many ways that people make decisions on when to apply herbicides. Some of you may use growing degree-days, phenological cues (Figs. 1 and 2), or are you the one that says, 'I always put down my preemergence (PRE) herbicides on March 15th'? If you are the latter, there is a good chance that you spray a great deal of postemergence (POST) herbicides because of the weeds you missed with the PRE application.

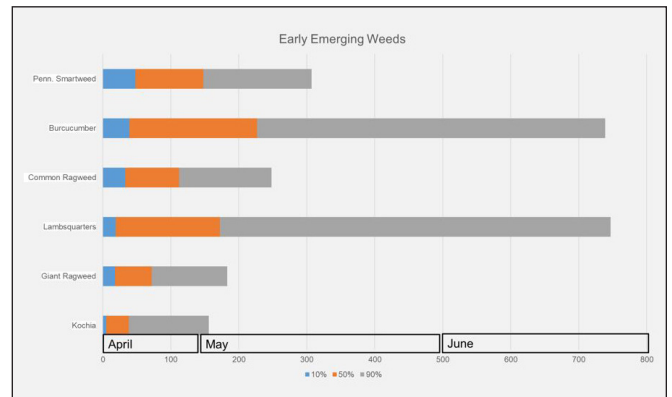
So, what exactly are phenological cues? Phenology is defined as the study of cyclic and seasonal natural phenomena, especially in relation to climate and plant and animal life. The use of phenology is applicable in many applications, including insect emergence and development, bloom dates, weed development and germination, and more.

Continuing with our example of applying crabgrass PRE according to the timing of forsythia flowering, this is the utilization of this method of phenological cues to time the germination of a weed. Research has long demonstrated that plants break bud, germinate, and flower based on growing degree days. We can time these events to consistently apply preemergence herbicides at the correct time to prevent emergence by observing bud break and flowering of ornamental plants.

continued on page 14



**Figure 1.** Maple at bud break is an example of using a phenological cue to time weed control.



**Figure 1.** Early emerging weeds based on growing degree days. Blue is 10% germinated, orange is 50% germinated, gray is 90% germinated. Adapted from Werle et.al. (2014).

Utilizing growing degree-days to time phenological cues gives an approximation of the soil temperatures (which is a factor of what determines the timing of the germination of the weed seeds). Growing degree-days (GDD) are calculated by finding the mean temperature for the day. You do this by adding the high and low temperature and divide by two to find the mean. That number is then subtracted from the base temperature (usually 40° or 45° F for many ornamental species) to get the GDD for each day. We typically use between 35° and 50° F for the temperatures in which GDD's are accumulated. After an accumulation of these GDD's plants will begin to break bud, flower, produce seeds, etc. This number varies within species, which is why it is important to have an idea of the GDD's to time these phenological cues.

This article has been edited for length. For more information, and helpful charts that you can use in your weed management plan, check out the Purdue Landscape Report article with the same title or directly via this link: <https://www.purduelandscape.org/article/early-season-predictions-methods-predict-weed-emergence/>

**References:**

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**Table 1.** Common ornamental plants bloom times based on growing degree days. Adapted from Cardina et.al. (2011).

Common Name	Phenological Event	Date	Degree Day
Red Maple	First Bloom	March 20	49
Red Maple	Full Bloom	March 30	71
Star Magnolia	First Bloom	April 4	89
Border Forsythia	First Bloom	April 4	922
Border Forsythia	Full Bloom	April 13	105
Saucer Magnolia	First Bloom	April 13	119
Bradford Pear	First Bloom	April 15	137
Star Magnolia	Full Bloom	April 16	149
Saucer Magnolia	Full Bloom	April 18	184
Bradford Pear	Full Bloom	April 19	189
Eastern Redbud	First Bloom	April 20	192
Snowdrift Crabapple	First Bloom	April 21	213
Common Lilac	First Bloom	April 24	231
Common Horsechestnut	First Bloom	April 30	264
Eastern Redbud	Full Bloom	April 30	277
Snowdrift Crabapple	Full Bloom	May 1	268
Flowering Dogwood	First Bloom	May 4	293
Common Lilac	Full Bloom	May 7	331
Winter King Hawthorn	First Bloom	May 8	344
Common Horsechestnut	Full Bloom	May 13	385
Winter King Hawthorn	Full Bloom	May 15	423
Black Locust	First Bloom	May 20	459
Black Locust	Full Bloom	May 28	565
Washington Hawthorn	First Bloom	June 2	641
Northern Catalpa	First Bloom	June 5	678
Washington Hawthorn	Full Bloom	June 10	775
Northern Catalpa	Full Bloom	June 13	818

**Table 2.** Using growing degree days to predict germination of large and smooth crabgrass. Adapted from Cardina et.al. (2011).

Common Name	Environment	Emergence	Date	Degree Day
Smooth Crabgrass	Lawn	First Emergence	April 16	155
Smooth Crabgrass	Bare Ground	First Emergence	April 17	178
Large Crabgrass	Lawn	First Emergence	April 24	211
Smooth Crabgrass	Lawn	25% Emergence	April 28	263
Smooth Crabgrass	Bare	25% Emergence	May 1	284
Large Crabgrass	Bare	First Emergence	May 2	306
Smooth Crabgrass	Lawn	50% Emergence	May 7	347
Smooth Crabgrass	Bare	50% Emergence	May 9	354
Smooth Crabgrass	Bare	80% Emergence	May 19	448
Large Crabgrass	Lawn	25% Emergence	May 20	472
Large Crabgrass	Bare	25% Emergence	May 22	502
Smooth Crabgrass	Lawn	80% Emergence	May 24	548
Large Crabgrass	Bare	50% Emergence	June 1	623
Large Crabgrass	Lawn	50% Emergence	June 6	692
Large Crabgrass	Lawn	80% Emergence	June 30	1160
Large Crabgrass	Bare	80% Emergence	July 1	1188

## THE IMPACT OF GRANULAR SIZE ON PRE EMERGENT HERBICIDE EFFICACY – OLCA FUNDED RESEARCH

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Reading PA 19610

The control of crabgrass (*Digitaria* spp.) is critical to the success of many lawncare companies in the midwestern part of the United States. Consideration regarding cost, consistency, coverage and residual effects create considerable discussion for many end users. Within this discussion the consideration of granule size and efficacy receives only mild levels of attention but it has been shown to have impact on efficacy of herbicide products in previous research (Anderson et al., 2006; Kelley and Coats, 1999). They are the most frequently used herbicide types in the turfgrass management industry (McElroy and Bhowmik, 2013) and create a chemical barrier against newly germinated seeds. There are three modes of action for these products. Acting as mitotic inhibitors and stopping cell division therefore preventing any further growth of newly emerged weed (proflam, pendimethalin). Protox inhibitors which lead to the formation of free radicals that degrade cellular structures when combined with light (oxadiazon) and cellulose biosynthesis inhibitors which have many modes of action but prevent cell wall formation (isoxaben). Formulation of these products and timing of water application post treatment can also have an impact on efficacy (Gasper et al., 1994) but there has been a recent increase in the use of granular formulations over powder and liquid applications due to the ability to add herbicide to potential other beneficial granules e.g. – herbicide and fertility applications combined.

A summer annual, crabgrass is aggressive in its growth habit and during the fall period in the Midwestern United

States once it has completed its life cycle it will leave dangerous and unsightly voids in home lawns, sportsturf facilities and many other situations considered to be undesirable. Large crabgrass *Digitaria sanguinalis* can grow to a height of 2.5 ft tall and has a predominantly upright growth habit. Stems are tinted purple in color and leaves are flat. The leaves have a rounded veneration but have a prominent midvein. In contrast smooth crabgrass, *Digitaria ischaemum*, has a shorter wider leaf which is hairless unlike the large crabgrass which has long stiff hairs on the sheath and on the upper and lower leaf surfaces. It is thought that smooth crabgrass is most often found in sports facilities including sportsfields and golf courses while large crabgrass is more often found in gardens and landscaped areas.

Products that can prevent this weed from emerging in the spring and retain extended control during the summer period with consistent control across different surfaces are considered desirable. The differences in particle size impact the uniformity of product distribution as well as the number of granules per unit area but these differences were noted to be important between active ingredients rather than using different rates within the same active ingredient. However further to this particle size also impacts the width of the spread and if uneven there is potential for the product to mix unevenly with smaller particles falling out of spreaders more rapidly compared to larger ones. (Fulton and Port, 2016). Dithiopyr needed 465 particles per gram for sufficient southern crabgrass control (*Digitaria ciliaris*) while proflam only needed 165 particles per gram (Kelly and Coats, 1999). It is important to note however that if herbicide load can be increased, leading to a reduction in the total amount of material applied, equivalent efficacy can be achieved (Yelverton, 1998). A recent trial from The Ohio State University and Pennsylvania State University looked at specifically granular sizes and their impacts on crabgrass development. The belief was that with smaller particles increasing the concentration of active ingredient per unit area the finer granule products should perform at or above expectations.

continued on page 16



Figure 1. Untreated



Figure 2. Treated Prodiamine

Further to this there is potential for loss of efficacy with the larger granule sizes but that there will be no difference across the three sites regarding liquid vs granule formulations. The trial was run at The Ohio Turfgrass Research and Education Center, Columbus OH, (OSU) The Ohio State University Wooster Campus, Wooster OH (ATI) and Pennsylvania State University Berks Campus, Reading PA (PSU). The trial was initiated on April 24th PSU, April 26th OSU and May 1 2019 at ATI, based on GDD models indicating that each site was at approximately 200GDD base 50°F. Evaluations of quality ratings (1-9 scale with 6 = acceptable), phytotoxicity (% damage) and crabgrass cover (% cover) were taken throughout the trial at the three sites.

The aim was to apply 167 Lb/AI product A of dithiopyr and 173LB/AI product A prodiamine as well as 0.5lb/N per A for all treatments with the only variance being the granule and herbicide load sizes. All treatments are indicated in Table 1.

### Results

No problems were noted with phytotoxicity across the three sites and turf quality was above acceptable at all times. The crabgrass pressure varied somewhat across the sites but in general the trends were similar. In Ohio, everything worked statistically the same (Table 2). At day 90 three products retained 100% control with all other products above 80% control at a minimum. Upon reaching D120 after the initial application fall off in control had begun to occur as product was breaking down in the soil profile. There were no significant differences found in the treatments at this stage either with minimum control at 65% while maximum control attained at this stage was just above 90% (Table 2). So the recommendation is to make purchase decisions based on best available price. It was also noted that in the trial that for consistency in overall turfgrass health and vigor, applying equal and sufficient N loads helps to mitigate difference herbicide load.

The turfgrass team at The Ohio State University would like to thank The Ohio Lawncare Association for the support of this work.



**Table 1.** Using growing degree days to predict germination of large and smooth crabgrass. Adapted from Cardina et.al. (2011).

Treatment	SGN	Product Rate	Additional N/M (lbs/Urea)
13-0-5 .29 Prodiamine	220-240	4 lb/M	0.23 (0.55)
13-0-5 .38 Prodiamine	220-240	3.05 lb/M	0.35 (0.84)
13-0-5 .42 Prodiamine	220-240	2.76 lb / M	0.39 (0.92)
21-0-20 .42 Prodiamine	150	2.76 lb/M	0.17 (.40)
Liquid Prodiamine		0.22lb / Al / A	0.75 (1.78lb)
13-0-5 .10 Dimension	220-240	5.68 lb / M	0
13-0-5 .125 Dimension	220-240	4.5 lb / M	.17 (.40)
13-0-5 .15 Dimension	220-240	3.8 lb / M	.26 (.062)
13-0-5 .10 Dimension	150	5.68lb / M	0
13-0-5 .19 Dimension	220-240	2.98 lb / M	.37 (.88)
Liquid Dimension		.25 lb / Al / A	0.75 (1.78lb)
Check			

**Table 2.** Crabgrass percent control at two sites in Ohio 90 and 120 days after application of pre-emergent herbicide treatments in 2019.

Trt	Herbicide (SGN)	Day 90	Day 120
1	13-0-5 .29 Prodiamine (220-240)	100 a <sup>†</sup>	86a
2	13-0-5 .38 Prodiamine (220-240)	82 a	82 a
3	13-0-5 .42 Prodiamine (220-240)	93 a	64 a
4	21-0-20 .42 Prodiamine (150)	82 a	66 a
5	Liquid Prodiamine	82 a	76 a
6	13-0-5 .10 Dimension (220-240)	85 a	74 a
7	13-0-5 .125 Dimensi on (220-240)	85 a	91 a
8	13-0-5 .15 Dimension (220-240)	93 a	91 a
9	13-0-5 .10 Dimension (150)	100 a	77 a
10	13-0-5 .19 Dimension (220-240)	85 a	85 a
11	Liquid Dimension	100 a	86 a
12	Check0 b	0 b	
LSD		40	36

<sup>†</sup>Means followed by a different letter are significantly different at  $p=0.05$

## RED THREAD IS HERE AGAIN – A DISEASE PROFILE

J. W. Rimelspach & T. E. Hicks  
OSU Turfgrass Pathology, Department  
of Plant Pathology

Photos and question have been coming in again this spring about red thread. These are from lawn care companies, golf courses and homeowners. With the mild winter and cool wet spring conditions this is set up to be a banner year for the disease! REMEMBER once a disease in turfgrass becomes established it is difficult to get under control. So stay ahead of the disease to be successful in management and having healthy turfgrass.

The following is a disease profile of the turfgrass disease red thread. There is detailed information about the fungi that causes the disease, what turfgrasses are affected, environmental conditions (weather) that is conducive for development, symptoms, the disease cycle and management strategies.



Over-all view of symptoms of red thread in Kentucky bluegrass and perennial ryegrass turfgrass. (Photo courtesy J. W. Rimelspach)



Active red thread – in a perennial ryegrass lawn, March 2017, Columbus, Ohio. (Photo courtesy J. W. Rimelspach)



Red thread in tall fescue + ryegrass lawn. There is also brown patch active in the tall fescue. Remember more than one disease can be found in a stand of turfgrass so which is the main problem or are several?



Note the reddish/pink sclerotia and pink cottony floccs of mycelium of *Laetisaria fuciformis*. (Photo courtesy J. W. Rimelspach)



The fungus can often be seen growing out of the ends of the leaf blades. (Photo courtesy J. W. Rimelspach)



Patches of red thread damage to a ryegrass and fine fescue lawn May 2017, Columbus, Ohio. Note the leaves are damaged and little of the fungus is evident, but examine closely! A hand lens is helpful.

**PATHOGEN:**

*Laetisaria fuciformis* / *L. fuciformis* is a Basidiomycete. Mycelium is multinucleate and do not typically have clamp connections.

**HOST:**

Occurs on a wide variety of turfgrass species (mostly cool season) over a wide geographical distribution. Mostly seen in Ohio in the transition from spring to summer. Especially severe under prolonged misty (wet) cool spring weather. However, the disease has been seen in every month of the year in Ohio and can be active whenever conditions are right for the fungi to grow.

Cool-Season Grasses:

- Fine Fescues - severe
- Tall Fescue - moderate to light
- Perennial Ryegrass - severe
- Kentucky Bluegrass - moderate
- Bentgrasses - moderate to light

Warm-Season Grasses:

- Bermudagrass - moderate to light

**ENVIRONMENTAL FACTORS:**

Cool to mild temperatures; heavy dew, light rain, fog

(wet leaves) and slow turf growth is ideal for disease development. *L. fuciformis* may be active over an extremely broad range of temperatures ranging from 32-85 F. Red thread is most severe under low N, P, K, and Ca fertility. The disease may occur year-round, but is generally most severe for no more than several months in any given location. In Ohio, red thread has been recorded as being active in every month of the year.

**TRIVIA:**

This is the first reported disease of a turfgrass species. First observed on ryegrass in 1873 by Berkeley in Australia and Wallis in England.

**SIGNS and SYMPTOMS:**

Circular or irregular shaped tan-colored patches of blighted grass 2 inches to 3 feet in diameter. The tan color of the dead leaf blades may be the initial symptoms observed. The patches often appear diffuse or ragged as they contain both infected necrotic and healthy green tissue. Small patches may coalesce to form larger patches.

Primarily a disease of that affects leaves and sheaths. Infection typically begins at the leaf tip and moves towards the crown. The fungus typically produces pale pink, web like mycelial growth that surrounds and connects leaf blades in close proximity to one another. The color of the mycelium can vary from pinkish to red.

Under humid environmental conditions, the pathogen produces fine pink-pale red-orange antler like mycelial growths called red threads or sclerotia. Pink cottony tufts of mycelial growth are also typical.

May be confused with Pink patch or Dollar spot; especially when mycelial growth is absent.

**DISEASE CYCLE:**

Survival: The fungus persists during unfavorable environmental conditions as sclerotia (red threads) on infected leaves or in the thatch. These threads / mycelial fragments may remain viable for several years.

Dispersal: Dissemination of sclerotia and arthroconidia occurs via wind, rain, animals, and equipment.

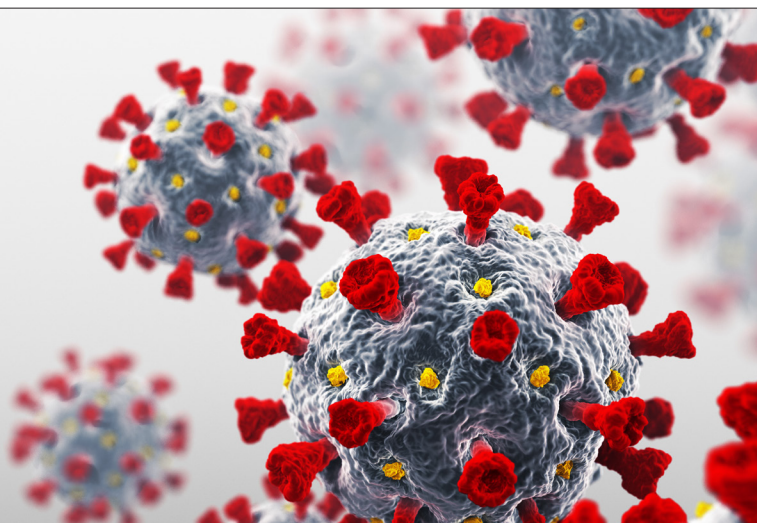
Infection: Growth and Reproduction: Growth and establishment of the pathogen occurs rapidly under optimal environmental conditions. Leaf death may occur as soon as two days post penetration. Prolonged periods of high humidity favor rapid disease development. Free water on the leaf surface appears to be required for germination of sclerotia and arthroconidia. Basidiospores may be produced, but their role in the disease cycle is not clear.

continued on page 21

# COVID-19: Guidance for Small Businesses

Loan Tips and Resources

[sba.gov/coronavirus](https://sba.gov/coronavirus)



## TIPS AND GUIDE TO APPLYING FROM US CHAMBER

1. Determine the amount you are eligible for
2. Calculate the amount that can be forgiven
3. Determine eligible expenses you'll cover with the PPP Loan
4. Have your paperwork ready
5. Work with a local bank if possible
6. Talk to multiple banks
7. Don't start applications with multiple banks
8. Follow up!

### US CHAMBER GUIDE

<https://www.uschamber.com/report/guide-small-business-covid-19-emergency-loans>

Be sure you know the programs available to you!

### SBA LINK

<https://www.sba.gov/funding-programs/disaster-assistance/coronavirus-covid-19>

**OMNIBUS CARES ACT** amends the Small Business Act (SBA) to create a new Business Loan Program category (hereinafter, the “program”). For the period from February 15, 2020 to June 30, 2020 (covered period), the law allows the Small Business Administration to provide 100% federally-backed loans up to a maximum amount to eligible businesses to help pay operational costs like payroll, rent, health benefits, insurance premiums, utilities, etc.

It provides that SBA may guarantee loans under this program on the same terms, conditions, and processes as a loan made under the SBA's current Business Loan Program. No collateral or personal guarantee is permitted to be required for a loan. The interest rate on loans under the program is not to exceed four percent.

The SBA will provide loans directly or in cooperation with your authorized local bank. Lenders authorized to make loans under the SBA's current Business Loan Program are automatically approved to make and approve loans under this new program.

### *Funds may be used for:*

Paycheck Protection Loans (“PPL”) to cover payroll costs, interest costs, rent, and utilities; Economic Injury Disaster Loan Grants to provide an ‘immediate’ advance of up to \$10,000.00 of working capital to businesses that have applied for Economic Injury Disaster Loans in response to coronavirus; and

### *General Loan Terms:*

With some exceptions, businesses eligible for these loan programs will include those with no more than 500 total employees (regardless of full time or part-time basis) and businesses of a size standard in the industry based upon SBA standards. This includes sole-proprietors and independent contractors, and other self-employed individuals are eligible for these loans. The maximum loan amount is capped at \$10 million and will equal to 2.5 times the business's monthly payroll costs.

Loan funds can be obtained and forgiven when used to cover payroll costs, interest on mortgage obligations, rent, and utilities. Under the PPL program, businesses can re-hire employees they had initially laid off, as long as they can demonstrate to the lender that they were in business before February 15, 2020, and that the employee was formerly on the payroll.

Lenders will not require collateral or any personal guarantee as security for these loans, and the interest rate cannot exceed 4%. Additionally, prepayment penalties are not

allowed. The only instance in which a lender will have recourse against any individual, shareholder, member, or partner of a borrower would be when the loan proceeds are used for an unauthorized purpose.

The typical SBA requirement that borrowers not be able to obtain credit elsewhere will also be waived.

In addition to this new loan program, certain applications can be made for loan payment deferments, extensions for maturity dates, etc., on most existing SBA loans during this COVID-19 declared emergency period.

#### **FEDERAL PROGRAMS**

Handout – SBA disaster assistance  
Disaster Loan Declaration  
SBA Paycheck Protection Program  
Federal Reserve Main Street Lending Program

#### **OHIO PROGRAMS**

Ohio Development Services Agency (DSA) has requested all Ohio businesses complete this Economic Damage Assessment Survey, designed to help determine economic impacts caused by the COVID-19 outbreak. State government leaders will use the feedback as they develop response plans.

SharedWork Ohio is a program that provides employers with an alternative to layoffs. The program allows workers to remain employed and employers to retain trained staff during times of reduced business activity. The participating employee works the reduced hours each week, and the Ohio Department of Job and Family Services (ODJFS) provides eligible individuals an unemployment insurance benefit proportionate to their reduced hours.

Ohio has submitted a request to the U.S. Small Business Administration (SBA) for access to Economic Injury Disaster Loans of up to \$2 million for small businesses. The SBA has published general guidance for employers regarding the COVID-19 pandemic, including information on the loan program. Entities impacted by the ongoing health crisis are encouraged to contact DSA at [BusinessHelp@Development.Ohio.Gov](mailto:BusinessHelp@Development.Ohio.Gov) for assistance.

ODJFS also has a page dedicated to the new unemployment compensation benefits available under the Governor's recent order. Employers with questions are directed to contact the ODJFS Business Line at: (614) 466-2319, though state officials are strongly encouraging employers to reference the webpage before calling in order to keep call hold times down.

ODJFS also asked Ohio employers planning layoffs or shutdowns as a result of the coronavirus pandemic to share the following mass lay-off number with their employees to speed the processing of unemployment benefits: 200018

continued from page 19

#### **INTEGRATED MANAGEMENT STRATEGY:**

##### 1. Cultural / Maintenance

In general any practice that encourages optimal growth of turf should be employed such as maintenance with a balanced fertility program, good drainage, adequate light, etc.

Increased Nitrogen (N) and Phosphorous (P) fertility has been correlated to decreased red thread susceptibility. Fertilizers alone may not eliminate red thread but can be a valuable maintenance approach to reduce the disease severity and for faster recovery.

The bottom line is to think about and know the fertility needs of lawns for optimal health. Soil testing can be a tool to help determine fertilizer needs and rates.

##### 2. Genetic Resistance

Home lawns, golf courses, or athletic fields: Plant less susceptible grasses if given the opportunity. For example, Kentucky bluegrass or Tall Fescue versus Perennial Ryegrass. Check state recommendations and NTEP (National Turfgrass Evaluation Trials – [nstep.org](http://nstep.org)).

##### 3. Chemical

Red thread is more easily managed using a preventative spray program rather than via curative chemical applications. Once the disease is active and patches are present, control is a two-step process - First, stop the growth of the fungi (use of an effective fungicide) and Second, grow the turfgrass to have new healthy leaves replace the diseased and damaged leaves.

There are many fungicides that are effective on red thread the key is to select one that is labeled for the site you are using it on. Many fungicides are NOT LABELED for RESIDENTIAL turfgrass areas. Read the label and follow instructions.

For fungicide recommendations for management of turfgrass diseases in residential lawns refer to the OSU information sheet at the website --- [turf-disease.osu.edu](http://turf-disease.osu.edu)

Click on the HANDOUT tab and look for the information sheet – Fungicides for Residential Turfgrass or contact us if there are questions.

# The Best Book for Weed Management in Turfgrass

## TURFGRASS WEED CONTROL FOR PROFESSIONALS – 2020 EDITION

Purdue University – Extension

From the desk of Joe Rimelspach



This is the BEST resource for the IDENTIFICATION of weeds (both dicots, monocots and sedges) and CONTROL for the Midwest. It is updated every year so has the latest information, is reasonable priced and an excellent book. Our own Dr. David Gardner from OSU is a contributing author. The guide provides weed identification and control/

management information that turfgrass professionals can use to develop effective weed control programs for lawns, athletic fields, golf courses, sod farms, and other turfgrass systems. The recommendations apply to the majority of the United States, with input from experts in Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin.

Here are some of the items included in the publication.

- Weed Types, Weed Life Cycles, Developing a Weed Control Program
- Great photos of broadleaf weeds, sedges and grassy weeds for identification.
- Herbicide Information (use, classification, mode of action, movement, resistance, etc.)
- Frequently Asked Questions and Answers About Weed Control with Herbicides
- Nonspecific Herbicides/Fumigants for Turfgrass Renovation
- Nonspecific Herbicides for Turfgrass Border Maintenance (Edging)
- Preemergence Herbicides (weed control ratings for preemergence herbicides, turf tolerance information, and more instructions for each product)
- Postemergence Herbicides (weed control ratings for postemergence broadleaf herbicides and turf tolerance, and more instructions for each product)

- Commonly Used Broadleaf Herbicide Combinations for Turfgrass
- Active Ingredients in Commonly Used Herbicide Combinations
- Sedge Control Herbicides (sedge control and turfgrass tolerance ratings, turf tolerance information, and more instructions for each product)
- Plant Growth Regulators for General Turf Use
- Herbicide/PGR Common Names, Chemical Families, and Modes of Action
- Format: Book. Herbicide Math

Formerly Purdue Extension publication AY-336.

**Language:** English. Pages: 132.

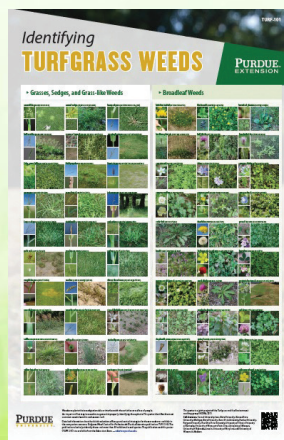
**ISBN:** 978-1-59-398-020-7

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It is also available as a PDF download. - \$12.00 each



## Identifying TURFGRASS WEEDS – Poster – from Purdue University

This Turf ID poster just became available in April of 2018. There are 33 pictures of weedy grasses and sedges and 33 pictures of broadleaf weeds. Each weed has a close-up and overall photos to assist in identification.

It will be sold as a 27" by 40" poster for \$15 each.

Author - Aaron Patton

Contributors to this poster include Ohio State University faculty – Dr. David Gardener (Dept. of Horticulture and Crop Science – Columbus) and Dr. Zane Raudenbush (Ohio State ATI – Wooster campus).

# MARK YOUR CALENDAR!

**JUNE 18:** Northeast Ohio Lawn Care Seminar

*(June Field Day will be moved to online education due to COVID-19 restrictions)*

**AUGUST 5:** August Field Day

OTF Research and Education Facility • 2710 North Star Road, Columbus, OH 43221

**NOVEMBER 7:** A Grateful Embrace

Dayton National Veterans Cemetery • Dayton, OH

Ohio Western Reserve Cemetery • Rittman, OH

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