

THE PURDUE LANDSCAPE REPORT

In This Issue

- [Current Issues in the Green Industry: Covid-19 Updates and Resources](#)
- [Black Knot Disease](#)
- [Assessing Freeze Injury on Horticultural Plants](#)
- [Managing your social media during Covid-19](#)
- [Green Industry Businesses Share Protocols to Maximize the Health and Safety During the Covid-19 Pandemic](#)

Current Issues in the Green Industry: Covid-19 Updates and Resources

(Kyle Daniel, daniel38@purdue.edu)

Tuesday, April 28th, 2:00 pm (Eastern)

To join the meeting via computer:

<https://purdueextension.zoom.us/j/95573025468>

Changes are happening within the Green Industry at a fast pace during the Covid-19 pandemic. In addition to the questions and stress of gearing up for the season, there are many new questions this year, such as: Can your business stay open? Can more than one person be in a vehicle for work purposes? Can you only offer curbside service to your clients/shoppers? What are other similar businesses doing to address health and safety? These are a few of the many questions that Green Industry businesses are tackling during the pandemic. We want to help you navigate through some of these questions via a free online event on Tuesday, April 28th, at 2:00 pm (Eastern). In addition to the Covid-19 related issues, we'll also discuss the effects of the freezing temperatures on plants and how to manage emerald ash borer and social media during the pandemic.

Topics covered include:

- Latest updates from the Executive Order
- Green Industry Alliance Update
- Updates from the Corydon Group
- Managing Emerald Ash Borer During the Pandemic
- Assessing Freeze Injury in Plants
- Managing Your Social Media During Covid-19

Speakers:

- Kyle Daniel, *Nursery and Landscape Specialist, Purdue*

University

- Rick Haggard, *Executive Director, Indiana Nursery and Landscape Association*
- Chris Gibson and Carlin Yoder, *Managing Principal and Vice-President, The Corydon Group*
- Cliff Sadof, *Professor and Extension Specialist, Purdue University*
- Lindsey Purcell, *Urban Forestry Specialist, Purdue University*
- Cale Bigelow, *Professor of Horticulture, Purdue University*
- Rosie Lerner, *Extension Consumer Horticulturist, Purdue University*
- Ariana Torres, *Assistant Professor and Extension Specialist, Purdue University*

To join the meeting via computer:

<https://purdueextension.zoom.us/j/95573025468>

To join the meeting via phone: Dial - 312-626-6799 or 646-876-9923 and enter the meeting ID: 955 7302 5468

If you have any questions, please email Kyle Daniel at daniel38@purdue.edu

See below for our previous Covid-19 related materials.

[Green Industry Businesses Share Protocols to Maximize the Health and Safety During the Covid-19 Pandemic](#)

[COVID-19 Guidelines for the Green Industry from Purdue Extension Specialists](#)

[Managing your social media during Covid-19](#)

Black Knot Disease

(Tom Creswell, creswell@purdue.edu)

Black knot, caused by the fungus *Apiosporina morbosa*, is a recurring problem on *Prunus* species. Most Indiana fruit growers, both professional and amateur, have at one time or another observed the black, knot-like warty growths (Fig. 1) that often occur on the woody parts of plum and cherry trees. This fungal disease is one of the most common stone fruit problems in America. It infects both wild and cultivated forms of cherries and plums, and occasionally peaches; however, in general, plums are more severely attacked. The disease occurs routinely on wild cherry trees. A small swelling first appears on a twig or branch of a susceptible tree. Newly formed “knots” are greenish and soft but become hard and black with age. The growth enlarges every season, weakening the tree, and eventually it may completely girdle the infected branch. Trees severely affected by the disease are difficult to save (Fig 2).



Figure 1



Figure 2

Management starts with selecting only disease-free nursery stock, avoiding trees with visible knots or abnormal swellings on the twigs and branches. In its early stages the symptoms appear as light brown swellings that later rupture the bark and turn darker. To control the problem on infected trees, prune out and burn (or bury) all infected wood in late winter or early spring before growth starts and as soon as new knots appear. Make cuts four to eight inches behind any obvious, black-knot swellings. Knots on the trunk or on large limbs can be carefully cut out with a knife and chisel, removing about an inch of healthy bark and woody tissue beyond any visible gall tissue, however if this kind of removal would cause major damage to the tree it may be best to just leave them alone. Trees with cankers on the main trunk will be weak and may break off in high winds. If practical, remove wild, neglected, or worthless plum and cherry trees nearby to reduce spread.

Fungicide applications may help but their effect is limited,

especially if other sanitation control measures have not been used. Lime sulfur or chlorothalonil can be applied as a dormant spray in the early spring prior to bud swell. Sprays must be applied before existing galls begin to produce spores and should be applied every 2 weeks until the sporulation period ends. Always read and follow all label directions when using pesticides.

Additional Resources:

<https://www.extension.purdue.edu/extmedia/ID/ID-146-W.pdf>

<https://www.purdueplantdoctor.com/>

Assessing Freeze Injury on Horticultural Plants

(Rosie Lerner, rosie@purdue.edu) & (Bruce Bordelon, bordelon@purdue.edu)

As so many gardeners are staying at home these days, we’ve had more opportunity to enjoy the spring display. And then, perhaps inevitably, “normal” spring frost and freeze visited – some plants are vulnerable to damage. The amount of damage will depend on how far along they are in their development.

Home fruit-growers may have reason to be concerned: At 28 F, you can expect a 10 percent loss of flowers/young developing fruit. However, at 25 F that loss increases to 90 percent! Much of Indiana dropped to the mid 20’s on the mornings of April 15 and 16. (Fig. 1)

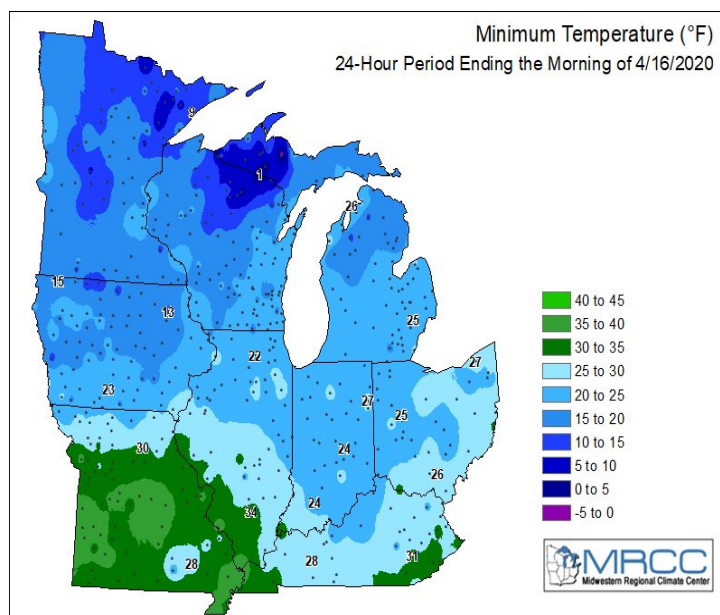


Figure 1: Temperatures across the region the morning of April 16, 2020. Credit: Midwest Climate Watch, Midwestern Regional Climate Center

https://mrcc.illinois.edu/cliwatch/DLY_LT_MAPS.htm#

For home growers, covering plants with sheets or blankets might provide a few degrees of protection. (Fig. 2)



Figure 2. Covering trees with sheets or blankets can provide a few degrees of protection. Credit: John Obermeyer, Purdue Extension

Bud counts were good until the freeze, so in some cases, even just 10 percent retained fruit might still be a decent crop on our tree fruits. Grapes may also still have ability to crop on shoots that have yet to emerge. Strawberries are a bit easier to protect through frost and freeze, but only if you took measures, such as using floating row covers, recovering with straw, etc.

However, it is only mid-April and additional frosts/freezes are still possible. Bottom line is that unless it is already a complete loss, we won't really know the rest of the story for quite a few more weeks.

It is easy to check fruit buds for damage by cutting open the bud and looking for dark brown or black centers. (Fig. 3)



Figure 3. Freeze damaged young peach fruit. Credit: Bruce Bordelon, Purdue Extension

Our Purdue Extension fruit specialists put together these videos to help you assess the status of your fruit plants.

Assessing Spring Freeze Damage to Apples

Video: http://youtu.be/YcSRg74Hb_A

Assessing Spring Freeze Damage to Peaches

Video: <http://youtu.be/DcS2XGAqoFk>

Assessing Spring Freeze Damage to Grapes

Video: <http://youtu.be/INUzu5Bx08M>

Assessing Spring Freeze Damage to Strawberries

Video: http://youtu.be/F-QoX1C4_S0

Assessing Spring Freeze Damage to Blackberries

Video: <http://youtu.be/EylhvfY2apM>

For ornamental trees and shrubs, plant response has been quite varied, depending on species, location and, of course, temperature and duration of that temperature. Susceptible plants may have wilted leaves, brown or black necrotic spots on leaves, or perhaps dieback of entire twigs. Plants that were in bloom likely have brown petals or dropped flowers entirely. (Figs. 4 and 5)



Figure 4. Magnolia blossom with severe freeze injury. Credit: Bruce Bordelon, Purdue Extension



Figure 5: Rhododendron blossom drop due to freeze. Credit: John Obermeyer, Purdue Extension

Note that freeze incidents are normal for this time of year. The good news is that woody plants, in most cases, will outgrow the damage.

Managing your social media during Covid-19

(Ariana Torres, torres2@purdue.edu)



In a survey of Indiana produce growers conducted on April 2020, we found that 72% of them are planning to sell online. Their online strategy ranges from sales through emails, texts, e-commerce enabled websites, or online platforms that aggregate food vendors and buyers. The other 28% felt they lack the technical knowledge to transition online strategies.

If you are planning to integrate online sales, a good start is to have a plan to implement or boost your social media presence. Having a strong social media presence will help stay in touch with customers and maintaining and building relationships. This publication provides 3 steps you can take today to manage your social media marketing during social distancing times.

1. **Communicate, communicate, communicate**

Good and frequent communication with customers is probably one of the most important tasks you have right now. During normal circumstances, I would tell you to post a few times a week on your preferred social media platform. These posts will help you increase brand recognition, draw new customers, and improve loyalty. While these are still true, you may have to increase to daily posts to share frequent updates. Examples of your posts include changes in products or services, working hours, what measures are you taking to keep everyone safe, and instructions on how to place orders, pay, and pick-up or receive their orders. You would also want to proactively share important information about your business and operations using other platforms such as emails, website, and mail marketing.

2. **Set up your page Inbox on Facebook**

As more people spend more time in social media apps, the importance of responding to comments, conversations, and interactions is key to tell your customers you are open for business. Setting up your Facebook Page Inbox allows you to read and respond to messages received via Facebook Messenger or Instagram Direct, as well as reply to comments and FAQ from your followers. A very useful tool of Inbox is to automate responses, especially to questions that come up frequently. You can customize Instant Replies to greet customers, give information about your business, or let them know that you will be reaching out soon.

3. **Take your events online**

As many events cancel due to social distancing, you can creatively turn lemons into lemonade. One example is to organize live sessions on social media platforms such as Facebook and Instagram. If you want to create a more engaging experience, you would want to make sure that you are using a high-quality camera and/or microphone for your live sessions. You can also invite your followers to attend an online webinar and encourage speakers to check in with your attendees every 15 minutes. In addition to these virtual event tools, it is important to keep attendees engaged by using Q&As, chat boxes, and polling sections to keep your attendees attentive and feeling included.

Green Industry Businesses Share Protocols to Maximize the Health and Safety During the Covid-19 Pandemic

(Kyle Daniel, daniel38@purdue.edu), (Lindsey Purcell, lapurcel@purdue.edu), (Cliff Sadof, csadof@purdue.edu), (Aaron Patton), (Janna Beckerman, jbeckerm@purdue.edu), (Tom Creswell, creswell@purdue.edu), (John Bonkowski, jbonkows@purdue.edu) & (Rosie Lerner, rosie@purdue.edu)

Day-to-day activities have changed every aspect of businesses throughout the country. The Green Industry is no exception, with changes implemented to maintain safe working environments for employees and their clients while being compliant with the state's Executive Order. Due to the diversity of services and products that the Green Industry provides, there is no one-size-fits-all approach to maintaining the health and safety of employees and clients. Most companies have developed protocols that fit best within their organization to go above and beyond what was instructed in the Executive Order.

Several businesses were contacted from different sectors within the Green Industry requesting their protocols during the Covid-19 pandemic. These businesses wanted to share their protocols with the industry to help others develop their programs to maximize the health and safety of their employees and clients. We list common general protocols and then specific practices for each industry segment. We then categorized them into two categories based on the target of the measures. *Employee/Operations* - applies to employee, work crews delivery and office practices, and *Customer* - applies to any interactions with customers. Landscape and turf businesses have employee categories divided into those pertaining to truck work crews and others.

General Practices for All Business Sectors:

- Limit groups of people who are gathered in one place to <10 and maintain "social distancing" of 6 feet apart.
- Remind people to always cough or sneeze into their elbow or a tissue and throw the tissue away immediately.
- Clean and sanitize frequently during the day, and between shifts with appropriate PPE
- Lathering with water and soap for 20 seconds is still recommended as best prevention even over hand sanitizer
- Stagger start, break, and lunch times to minimize gathering and increase social distancing.

Nursery Businesses:

Employee /Operations

- Limit the number of employees per to one per vehicle unless wearing masks.
- No vehicle sharing unless wearing PPE gloves and mask.
- When possible employees should meet at the site in their own vehicles
- Any employee that is sick or exhibiting symptoms needs to stay home, no exceptions.
- Supervisors have the authority to send home sick employees. Supervisors should constantly monitor

employees showing signs of illness and sick employees will not be allowed to work.

- If an employee comes to work sick, they should be isolated and any known areas they may have touched and or contacted should be cleaned immediately using masks and gloves.
- A sign will be placed on the front door asking drivers bringing in deliveries to please wait in their trucks and someone will come out to help them.
- Shipping docks, lunchrooms, bathrooms, door knobs, table surfaces, phones, anything with a handle, will be disinfected several times a day throughout the day.
- Identify cleaning crews and clean after each shift using masks and gloves.

Customer Focus

- No customers allowed in offices.
- Customers with terms in good standing do NOT have to stop back in the office after loading.
- Customers without terms should call in with a credit card number to avoid having to stop back in the office.
- All invoices will get mailed or emailed after they are processed.
- Customers will be encouraged to place orders or make availability inquiries via the website or phone/email/text in lieu of face-to-face interactions.
- Account managers will no longer be making customer visits for the foreseeable future.
- Customers encouraged to stay in or near their trucks. Orders will be loaded for them.

Garden Center Businesses:

Employees Operation Focus

- Limit office personnel on site by utilizing Zoom meetings daily.
- All employees have access to and are strongly encouraged to wear PPE, and use hand sanitizer, masks, wipes, etc.
- Set up networks and computers to allow work from home where possible.
- Upgrade accounting software to give the ability to work remotely.
- Limit employee access to offices, instead meet in larger rooms or outside in the open air
- Staggered start times. Install: 7:30, Maintenance 8:30, Garden Center 9:00 (to avoid as many people in one spot as possible)
- Limiting the number of employees per to one per vehicle unless wearing masks.
- Limit the number of employees per to one per vehicle unless wearing masks.
- No vehicle sharing unless wearing PPE gloves and mask.

Customer

- Offer curbside pickup, delivery, and call in orders. Stage items on shopping carts and handles disinfected after each pickup.

- Close physical store and make sales via websites (i.e. Shopify)
- Limit hours store is open to the public.
- Limit access to the offices from the public by locking doors and placing a sign on them with instructions to call or knock.
- Place hand sanitizer stations all over the store. Especially near time clocks, registers, bathrooms and other high traffic areas.

Supplier Businesses:

Employee/Operations

- Delivery drivers have their assigned trucks.
- Equipment operators have their assigned pieces of equipment.
- Close office doors and only allow employees to enter.
- Hand sanitizer available throughout the offices.

Customer

- Encouraging our customers to call ahead.
- Payment with credit card over the phone.

Landscape and Turf Businesses:

Employee/Operations- Truck/Work Crews

- Provide each employee with their own hand sanitizer, wipes, masks, etc.
- Limit the number of employees per to one per vehicle unless wearing masks.
- No vehicle sharing unless wearing PPE gloves and mask.
- When possible employees should meet at the site in their own vehicles
- Crews to only go to gas stations for gas. Avoid the gas station store by bringing breakfast, lunch from home.
- All employees must adhere to their specific assigned staggered start times in order to limit the amount of people in one location.
- Gloves must be worn when using company tools, or they may not be shared.
- Wash hands after using common shared items: i.e.: fuel pumps/trailer handles, etc.—a wash station will be set up outside service door.
- No personal uniforms or clothing is to be left overnight. Employees are encouraged to wash clothes at home each evening.
- Spray the handles of all of the employee's vehicle doors and handles in the shop parking lot.

Employee/Operations- Others

- Even though it is cleaned frequently, everyone is responsible for sanitizing the restrooms before and after each use.
- First aid kit should have sanitizer and Dawn dish soap included
- Administrative offices are closed—no one is permitted in them other than the office manager.
- The time clock will not be used. Text, email or call times in

- to office manager daily.
- Upgrade software on laptops and personal computers to give office staff the ability to work remotely.
- Crews and personnel are not allowed to congregate at the shop or in the break room.
- Only come into the office if absolutely necessary.

Customer

- Let all customers know before scheduling a visit to make sure they are comfortable with us onsite.
- Designers should conduct most landscape appointments over the phone, by either calling when onsite or getting the info up front, visit the site, then calling back with questions.
- Designers, salesmen, and customer relations staff are encouraged to make calls from home as possible to limit

traffic in landscape offices.

- Limited access to the offices by the public. Locked doors and placed a sign on them with instructions to call.
- Communicating with customers if onsite visit is needed then we are keeping the 6' distance

For additional information, see COVID-19 Guidelines for the Green Industry from Purdue Extension Specialists:

<https://www.purduelandscapereport.org/article/covid-19-guidelines-for-the-green-industry-from-purdue-extension-specialists/>

We would like to give our sincere thanks to the companies that provided their protocols for navigating Covid-19.

We would also like to thank Mary Breidenbach, Cumulus Design, for her assistance in gathering company responses.

It is the policy of the Purdue University that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Purdue Landscape Report © Purdue University - www.purduelandscapereport.org

Editor: Kyle Daniel | Department of Horticulture and Landscape Architecture, 625 Agriculture Mall Dr., West Lafayette, IN 47907