



Home, Yard, and Garden Pest Newsletter

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In This Issue

Modified Growing Degree Days1

First Quarter 2021 Plant Clinic Sample Summary 2

Lilac / Ash Borer 3

Quackgrass Identification and Control 4

Unwanted Tree Seedlings in the Lawn and Landscape 6

Avoiding Boxwood Blight 6

Crown Rust of Common Buckthorn 7

Rabbits in the Landscape 8

Modified Growing Degree Days (Base 50° F, March 1 through May 16)

Station Location	Actual Total	Historical Average (11 year)	One- Week Projection
Base 50° F - March 1 through May 2			
Freeport	293	214	412
St. Charles	313	211	436
DeKalb	301	212	421
Monmouth	351	303	475
Peoria	368	331	492
Champaign	389	358	516
Springfield	413	432	548
Perry	435	406	564
Brownstown	431	417	561
Belleville	482	509	614
Rend Lake	544	562	678
Carbondale	534	535	666
Dixon Springs	557	563	690

Insect development is temperature dependent. We can use [degree days](#) to help predict insect emergence and activity. Home, Yard, and Garden readers can use the links below with the degree day accumulations above to determine what insect pests could be active in their area.

[GDD of Landscape Pests](#)

[GDD of Conifer Pests](#)

Degree day accumulations calculated using the [Pest Degree-Day Calculator](#) (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey). –Kelly Estes

First Quarter 2021 Plant Clinic Sample Summary

The Plant Clinic remains open. We are currently operating with reduced staff and are only in the lab as needed for diagnostics and other lab work. We may not be able to answer or return phone calls in a timely manner; MWF are the best days to contact us due to staffing schedules. You can also email us at plantclinic@illinois.edu.

Samples shipped via USPS, UPS, and FedEx are all arriving in a timely manner. We recommend shipping early in the week (Monday-Wednesday) and keeping the tracking number so we can trace the package if needed.

Boxwood samples the most common over the past few two months. One sample was diagnosed with boxwood blight, and this disease is still a concern especially in the northern part of the state. For more information about boxwood blight, please see: <http://hyg.ipm.illinois.edu/article.php?id=869> and <http://hyg.ipm.illinois.edu/article.php?id=1137>.

We're seeing a lot of needle blights and needle casts on fir, spruce, and pine; this is not uncommon in spring. Many of these diseases attack stressed plants, so reducing stress by selecting the correct plant for the space, not planting too deeply, pruning during dry weather, fertilizing appropriately, watering during periods of dryness, and mulching will all help reduce the severity of these diseases.

The table below summarizes the ornamental, fruit, and vegetable samples received January through April 2021. *Diane Plewa* - dplewa@illinois.edu

First Quarter 2021 Plant Clinic Sample Summary	
Host	Pathogens and/or Pests Confirmed (C) or Suspected (S)
Austrian Pine	Diplodia tip blight (C), Red band needle blight (C)
Boxwood	Boxwood Blight (C), Volutella blight (C), Fusarium canker (C), Macrophoma leaf spot (C), Boxwood leafminer (C), Boxwood psyllid (C), Boxwood spidermite (S), environmental stress (S)
Colorado Blue Spruce	Rhizosphaera needle cast (C), Stigmata needle blight (C), environmental stress (S)
Easter Lily	Rhizoctonia root rot (C)
Elm	Fungal canker (C)
Fir	Phyllosticta needle blight (C), Rhizosphaera needle cast (C), environmental stress (S)
Hibiscus	No pathogen found (C), environmental stress (S)
Holly	No pathogen found (C), environmental stress (S)
Inch Plant	Tobacco Mosaic Virus (C), Botrytis blight (C)
Kale	Rhizoctonia damping off (C), aphids (C)
Lavender	Phytophthora root rot (C)
Linden	Insect damage
Microgreens	Pythium root rot (C), fungus gnats (C), slime mold (C)
Oak	Oak bullet gall wasp (C), Fungal canker (C), Katydid damage (C)
Pachysandra	Volutella blight (C), Oystershell scale (C)
Pea	No pathogen found (C), environmental stress (S)
Serviceberry	Cicada egg-laying injury (C)
Tomato	Edema (C)

Lilac / Ash Borer

Lilac borers (*Podosesia syringae*; also called ash borer) feed on lilac, ash, privet and other members of the olive family. Adult moths resemble paper wasps in appearance and behavior. They are about 1 inch long, slender, with dark brown bodies and yellow banding. They are active during the day and flex their abdomens as they walk.



Ash borer (*Podosesia syringae*) adult, Whitney Cranshaw, Colorado State University, Bugwood.org

Peak moth flight occurs in late May and early June, depending on your location in Illinois. During this time, adults are mating and laying eggs. Adult females can live about a week, during which they can lay up to 400 tan, oval-shaped eggs. Typically eggs are laid near cracks or wounds in tree bark, giving larvae easy access to the tree after they hatch.

Larvae hatch from the eggs within 14 days. The larvae are cream color with brown heads and can grow 1 to 1 ½ inches in length. Larvae chew into the tree where they tunnel and feed on the tree's cambium. Eventually, these larvae will bore deeper into the tree, feeding on the sapwood and heartwood. This type of larval feeding disrupts water and nutrient transport in the trees leading to dieback.

When scouting for lilac borer, look for scarring or cracks near the base of plants. Key signs that lilac borer might be present are sawdust and sap accumulation near or below a ¼ inch hole. As larvae bore into the tree, they push debris out, leaving a pile of sawdust below the hole. Sap can also accumulate at the boring site as the tree responds to the boring injury.

Lilac borer larvae overwinter in the tunnels they chew into the tree. In the spring they pupate and the adult moths emerge from the tree, leaving their pupal casings behind. The pupal casing can sometimes be seen at the opening of the exit hole, which is another identifying sign for this species.



Lilac borer pupal casing protruding from an exit hole, Phil Nixon, University of Illinois at Urbana-Champaign.

There are multiple ways to prevent lilac borer injury. The first is to focus on plant health. Because lilac borers are attracted to stressed plants, improving plant health through watering, fertilizing, mulching and avoiding damage during maintenance can help prevent future issues by making the plants less attractive. Avoiding pruning when moths are present can also make plants less attractive to borers.

Lilac borers tend to attack lilac trunks that are greater than 2 inches in diameter. Cutting away trunks larger than 2 inches in diameter and encouraging sucker growth is a cultural control that can limit lilac borer damage.

Biological controls can be used to treat lilac borer larvae. Beneficial nematodes can be applied as a spray application or injected into larval tunnels where they will infect and kill lilac borer larvae.

If you choose to treat an existing lilac borer using chemical controls, timing is the key to applying an effective treatment. Spray applications of permethrin (Astro) or chlorantraniliprole (Acelepryn) can be made on the surface of the tree bark when larvae are active. The timing can be determined in two ways:

1. Monitor male moth populations to time your application. Pheromone traps can be used to

monitor the male moth population. Check the traps 2 to 3 times per week and record the number of males. This will give you the ability to identify when you have peak male capture. This timing will coincide with peak egg-laying by female moths. By applying a treatment to the trunk 7 to 14 days after peak male capture, newly hatched larvae will be in contact with the insecticide before they bore into the tree.

2. Applications can also be timed based on plant phenology. If the pest is present and causing damage, apply a treatment to the trunk at the end of bloom for common lilac (*Syringa vulgaris*).

It may be tempting to apply a systemic neonicotinoid treatment like imidacloprid (Merit) to the trees. However, neonicotinoid treatments are not effective in killing lilac borer larvae.

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Quackgrass Identification and Control

Quackgrass (*Elytrigia repens*) is a coarse textured, cool-season perennial grass that has surely been enjoying the cool temperatures and timely rains we've had this growing season. When we see lush new growth of our cool-season turfgrasses, we can often find quackgrass growing happily nearby. It spreads by seeds and long, light-colored rhizomes and aggressively forms patches. Quackgrass can be difficult to eliminate, especially from finer-textured turfgrasses. If you haven't done so already, scout your landscapes for this weed and plan your control tactics.



Quackgrass's wide leaves are noticeable in finer textured turf, Michelle Wiesbrook, University of Illinois

Quackgrass can look very different depending on whether it is being kept mowed short or allowed to grow to its full potential. Here are general characteristics to aid in identification. The ligule is membranous and very short. The leaf blades are flat, dull green to light blue green and taper to a pointed tip. Blades grow 1/8 to 1/2 inch wide and can grow 3 to 12 inches long. On the upper surface, the blades are smooth to rough, and may be sparsely hairy. However, on the lower surface, they are smooth. The sheaths can be hairy or smooth. Often, young plants will have hairy sheaths. The leaves have a very short (1/32-inch) membranous ligule. A key identifying feature of quackgrass is the claw-like, slender auricles that clasp the stem. This presence of these structures easily separates this plant from other grassy weeds like crabgrass or various foxtail species.



Quackgrass rhizomes, Michelle Wiesbrook, University of Illinois

The rhizomes of quackgrass are long-lived, slender, and white with sharp tips. They can stretch out several feet long producing new roots and shoots every few inches or so. Hand pulling this plant often results in breakage of stems or rhizomes. Unfortunately, remaining stems and rhizomes in the soil will continue to grow. Adding insult to injury, quackgrass can also spread by seed. The seed heads are 2 to 6 inch long spikes that occur from late May

to September. Other less common yet appropriate names for this persistent grass include quick grass and devil's-grass. Additionally, the rhizomes are reportedly edible and I've had dogs selectively pull them from my garden waste pile to chew on.

Quackgrass thrives in well drained soils with slightly acidic pH. It favors thin lawns and other areas where there is little to no competition. It can be a serious management problem in lawns, landscapes, nurseries, and crop areas. To decrease populations of this weed in lawns, maintain turf density and health through proper culture. Low mowing and fertility maintenance may aid in decreasing populations. Turfgrass that grows faster will compete better with this weed. Turfgrass that grows darker will perhaps mask this dark colored weed as well.

Quackgrass is often confused with crabgrass, another common turfgrass weed. However, crabgrass is a lighter green, warm season annual that occurs later and its leaf sheaths remain prominently hairy throughout the growing season. Also, crabgrass spreads by seed only and not by rhizomes as does quackgrass. Finally, remember that crabgrass will not have long, clasping auricles at the base of the leaf.



Young quackgrass can have a hairy sheath, Michelle Wiesbrook, University of Illinois

Identifying grasses can be challenging! For assistance, check out *Identifying Turf and Weedy Grasses of the Northern United States*. This pocket-sized guide is available for sale at pubsplus.illinois.edu.

Controlling quackgrass can be challenging as well. Apply herbicides in the spring and fall when this plant is actively growing. Once temperatures rise,

this weed will go dormant. Unfortunately, there are not any selective herbicides available for use in lawns. Nonselective products such as glyphosate can be used but realize that turfgrass will be injured or killed. In these areas, fall applications would be best as seeding can then follow when temperatures are more conducive for turf seedling growth. In fact sod may be more competitive with any remaining quackgrass rhizomes than turf seedlings would be.

In gardens, cultivation yields poor control due to the rhizomes. Spot or directed applications of glyphosate (RoundUp and others) may be used. Check after a week or so to see if a second application to regrowth is in order. There are herbicides specific for killing grasses that may be tried such as sethoxydim (Hi-Yield Grass Killer and others) or fluazifop (Fusilade II and others). Read and follow all label directions very carefully. If chemical use is not an option, digging by hand may be effective but the entire plant must be removed. Plan to monitor the site and schedule future digging attempts.

Selective products have been available in the past, but have now been removed from the marketplace or the use restrictions on the labels have changed. At one time, turfgrass managers relied on sulfosufuron (Certainty) to control tall fescue growing in other cool-season turves, but cool-season grasses were removed from the label a few years ago. Any existing old stocks can still be used however. I have witnessed several discussions online where turfgrass applicators were suggesting that sulfosufuron could perhaps still be used with a very loose interpretation of the label. I have cautioned applicators against this for fear that IDA inspectors would not share the loose interpretation. These applications are presumably broadcast in nature. However, it MAY be possible to use sulfosufuron as a spot treatment. Applicators should carefully read and follow all label directions!

Some applicators have mentioned that they have seen some control of quackgrass with mesotione (Tenacity) while controlling other grassy weeds such as nimblewill. However, colleagues at Iowa State University report that treated plants turned white but came back stronger than ever. Quackgrass is not listed on the product label.

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Unwanted Tree Seedlings in the Lawn and Landscape

The maples are currently on a mission to reforest the Earth. The ash, cherry, and mulberry trees are often on the same mission. For some, birds help spread the seed. For the maples, all that is needed is wind and gravity to blow the samaras to the ground. You've seen them and certainly played with them as a kid – the helicopters or whirlygigs or whatever you called them. This morning I noticed they cover my sidewalks, lawn, and landscape beds. In a few days, there will be baby maples everywhere and much work to be done to reclaim the landscape.



Silver maple seeds littering a landscape bed, Michelle Wiesbrook, University of Illinois

What can you do? I plan to sweep the walk and dispose of the seeds. A leaf blower could be handy for clean-up, if only I had one. Removing the tree last year with one sharp cut at the base would have been effective. There are seedless cultivars available now that would make nice replacements. Another consideration would be to use a registered and labeled growth regulator to reduce or eliminate fruit development.

Once the seedlings germinate in a landscape bed they can be pulled easily by hand. They are best removed after a rain when the soil is moist. Do not cover them with mulch as germination will likely not be prevented. The seeds are relatively large in size and can germinate from deeper depths. In lawns,

simply mow them off relatively soon. Do not wait for them to grow several inches. Mowing regularly should take care of the problem. Alternatively, broadleaf herbicides labeled for use on lawns may be used.



Maple seedlings and other weeds in a landscape bed, Michelle Wiesbrook, University of Illinois

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Avoiding Boxwood Blight

Boxwood blight is a fungal disease that continues to pose a serious threat to boxwood plants in nursery production and landscapes. To date, we have only detected isolated incidents of boxwood blight in Illinois. Our goal remains to avoid introducing the pathogen, and to eradicate any future detections. If you maintain a landscape with existing boxwood shrubs, then boxwood blight should be high on your list of diseases to avoid. It is much easier to prevent a boxwood blight introduction than to control it. Start by knowing the common boxwood blight symptoms and signs highlighted in [Plant Clinic Fact Sheet: Boxwood Blight Detection](#). You should be familiar with the common boxwood pests that have symptoms that might be easily confused with boxwood blight: [Boxwood Blight Look-alikes](#).

If you suspect boxwood blight, please collect a representative sample(s). Submit the sample to the University of Illinois Plant Clinic using the directions provided in within [Plant Clinic Fact Sheet: Boxwood Blight Detection](#).



Boxwood with boxwood blight defoliation symptoms

Avoiding this disease requires an understanding of how it spreads. The pathogen can move short distances within a plant or to nearby boxwood shrubs via splashing irrigation or rainfall. However, the disease moves over longer distances and is most likely to enter a new landscape through infected plant material or on contaminated tools, clothing, or vehicles.

Be cautious when adding new boxwood or pachysandra (also a host) plants to a landscape. Always purchase boxwood plants from a reputable nursery that strictly adheres to boxwood blight best management practices. Closely inspect plants for symptoms of boxwood blight prior to purchasing. These new plants should be quarantined for at least one month before installation. Scout the quarantined plants regularly for common boxwood blight symptoms. Do not spray the quarantined plants with fungicides. Fungicides will suppress symptom development. Your goal should be to allow any infected plants to develop symptoms so that you know not to plant them into the landscape.

Scout existing boxwood plantings for symptoms and signs before pruning. Avoid working with boxwoods when they are wet. Collect and remove debris from pruning or shearing operations that involve symptomatic plants. Burn or bury the debris, do not com-

post. Clean and disinfect pruning tools, equipment, shoes, and clothing between plantings and before moving to a new landscape.

The Horticultural Research Institute developed a set of Best Management Practices for Boxwood Health. Their guidelines are for Production as well as Landscape Management. You can download the document via the following link:

<https://irp-cdn.multiscreensite.com/5d757b5b/files/uploaded/HRIBoxwoodHealthBMPs-V3-2020.pdf>

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Crown Rust of Common Buckthorn

May is Illinois Invasive Species Awareness Month. Common buckthorn (*Rhamnus cathartica*) was one of the first invasive species that I was introduced to. Readers in the northern portion of the state are likely to be familiar with this pest, as it has invaded and overtaken woodland areas by easily out-competing native plants for light and moisture. I learned first-hand how invasive and destructive this plant was during a high school class that used a Kane County Forest Preserve as a “classroom.” Since then, I’ve spent countless hours clearing common buckthorn to reclaim woodland habitat. Buckthorn puts up a fight with every step from cutting to dragging and trying to load it into a brush chipper.

Unfortunately, common buckthorn is a tough and adaptable tree with few pests. You will occasionally find crown rust (*Puccinia coronate*) infecting its leaves. However, the disease doesn’t cause enough injury to assist with eradication efforts.

Crown rust causes yellow to orange spots on buckthorn leaves, petioles, and green stems. They are hard to notice from a distance, and they don’t seem to affect the trees’ health significantly. However, these infections are an important source of inoculum for crown rust of oat in the north-central states. Moderate to severe epidemics on cultivated oats can reduce grain yield by 10 to 40%. Several specialized varieties of the fungus attack many related grasses, including ryegrass (*Lolium* spp.) and fescue (*Festuca* spp.) used in lawns.



Crown Rust on the upper leaf surface of common buckthorn



Clusted cup-like aecia on the underside of a common buckthorn leaf.

In my opinion, the best way to control crown rust of buckthorn is to remove the entire plant. Illinois has designated common buckthorn as an exotic weed. Removing common buckthorn plants will help prevent this invasive species from spreading and will also help to reduce the potential for crown rust on desirable plant species.

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Rabbits in the Landscape

I look forward to my local FFA Chapter's annual greenhouse sale. It's a great opportunity to spruce up the front of the house with flowers. I have hanging baskets across the porch and several planters

filled with a variety of annuals. I enjoy the beauty of the flowers and the color they give the yard. This year, not even a week after planting, I noticed several planters that the plants were broken, missing, or chewed on. I have two little boys that love play in the dirt, and so I honestly just chalked it up to them getting carried away playing. After watering these planters daily, I noticed the plants getting smaller and found rabbit scat in the planters. I finally found the culprit. I began to feel like Mr. McGregor from Peter Rabbit and wanted full-on warfare with them. It not only financially hurts as I watched several dollars be eaten up, but I also lost the beauty of all the flowers.



Knowing that I couldn't just tie my dog out front in the yard to keep the rabbits away, I was going to need to resort to some other form of control. There are two types of repellents available to use taste and odor repellents. Taste repellents containing thiram and ziram make the plants distasteful. Odor repellents repel the rabbits by a strong odor that is emitted, and the products may contain ammonium soaps. These products can vary in their range of effectiveness as some rabbits will deal with the taste or the smell and still proceed to eat around the infected area or chew on new tender growth. The other problem is the frequent application required as many of the products wash off during rain or watering.

The next option is to modify the habitat. In my case, it is to raise containers over 2 feet high to keep rabbits being able to jump into the container. It can also mean keeping the yard free of debris, tall grass, or places for the rabbits to burrow. In my case, the containers are heavy, and the bottoms are not very

sturdy, so we will have to create a strong base with legs to raise the containers should we choose this option. Habit modification can be effective but living in an urban setting, even if you modify your area, your neighbor might not, and that will not deter the rabbits from visiting.

The last and most effective option is exclusion. Fencing is the best way to keep rabbits out until new plants have time to establish. Chicken wire has been proven effective against rabbits. The mesh of the wire should be 1 inch or more petite and at least 2 feet tall. Be sure to support the fence with posts (rebar, wooden posts, or fence posts) and bury it slightly under the soil to keep the rabbits from burrowing.

Also available for use are U-shaped landscape pins that can hold the fence down.

Unfortunately, the fence may not have the same aesthetic appearance that you were hoping to have, but rabbit control is difficult. There is no magic bullet to control rabbits, so make multiple tactic approaches to the problem with repellents, trapping, exclusion, and habitat modifications to get the best results.

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Source: Jauron, Richard. Protecting Gardens from Rabbits. *Iowa State University Horticulture and Home Pest News*. <https://hortnews.extension.iastate.edu/2002/6-21-2002/rabbits.html>. Accessed 5/17/2021.

