COOPERATIVE EXTENSION SERVICE
HOME, YARD & GARDEN PEST NEWSLETTER
College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana - Champaign
Illinois Natural History Survey, Champaign

Number 7 - June 11, 2018

Modified Growing Degree Days (Base 50°F, March 1 through June 7)

Station Location	Actual Total	Historical Average (11 year)	One-Week Projection	Two-Week Projection
Freeport	747	554	871	1019
St. Charles	748	523	863	1003
DeKalb	715	605	844	997
Monmouth	909	664	1042	1195
Peoria	930	704	1066	1225
Champaign	976	726	1118	1283
Springfield	1128	802	1276	1446
Perry	1117	749	1254	1411
Brownstown	1070	870	1222	1394
Belleville	1120	904	1263	1426
Rend Lake	11489	974	1349	1529
Carbondale	1104	924	1254	1422
Dixon Springs	1163	988	1317	1487

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 Illinois IPM Degree-Day Calculator (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey). (*Kelly Estes*)

Lilac Borer / Ash Borer

Lilac borer (*Podosesia syringae*) is also called ash borer because of its varied taste in host plants. Lilac borer can attack lilac, ash, privet and other members of the olive family. Adult moths are about 1 inch long, slender, with dark brown bodies and yellow banding. They resemble paper wasps in appearance and behavior. They are active during the day and flex their abdomens as they walk.

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 oval, tan color eggs. Typically eggs are laid near cracks or wounds in tree bark.

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 you are scouting for lilac borer, look for scaring or cracks near the base of plants. Key signs that lilac borer might be present are sawdust and sap accumulation near or below the site of boring, a ¼ inch hole. The sawdust piles up as larvae feed and push debris out of the holes they create. Sap can accumu-

late at the boring site in response to the borer wounding the tree.

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.

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 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 in to 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 chloranitroniliprole (Acelepryn) can be made on the surface of the tree bark when larvae are active. The timing can be determined using pheromone traps to attract and monitor male moths. Check the traps 2 to 3 times per week and record the number of males. When male populations peak, the moths will be mating and laying eggs. Apply your treatment 7 to 14 days later when newly hatched larvae will be present and can be effectively targeted. (*Sarah Hughson*)

Fourlined Plant Bug

We have spotted the fourlined plant bug (*Poecilocapsus lineatus*) doing unsightly damage to a favored garden plant. These fourlined plant bugs are aptly named for the four black lines that run down the leathery part of the adults' wings. The outer two lines end with a dot and the two inner ones end where the membranous part of the wings starts. The lines of the adult fourlined plant bug can be bright green to bright yellow. The body of the nymphal stage can be bright red and develops the four lines as it matures.

Eggs overwinter in the stems of affected plants. This time of year, they hatch, begin feeding and remain active for a short period as there is only one generation per year. Fourlined plant bugs favor feeding on plants in the mint or aster family but will feed on a wide range of ornamentals. The feeding damage may be all that you see because they tend to hide in the leaf axils.

This is a "true bug" which can be identified by their piercing, sucking, mouthparts and wings that are half-leathery and half-membranous. Their mouthparts form a conspicuous beak that runs along the underside of the body when they are not feeding. The piercing sucking mouthparts allow the insect to feed on plant fluids. They produce dark round sunken spots on the leaves after

feeding. The spots may be clear then form a depression as the plant bug sucks out the chlorophyll. Even through this bug causes lots of damage it is considered just an aesthetic problem and unless populations are extremely high control may not be necessary. However, control options are as follows:

1. Cut back plants in the fall to remove eggs from the landscape. The eggs are laid in the tender stems before the population dies out. Remove any leaf litter left behind from the growing season.
2. Do nothing and allow nature take its course. Natural predators include a parasitic wasp whose larvae feast on fourlined plant bug eggs and possibly spiders.
3. Spray insecticidal soap or permethrin when nymphs are seen.
4. A hard water stream can knock nymphs of the plants making it hard for them to re-establish.

(*Kelly Allsup*)

Weedy Members of the Carrot or Parsley Family– Identify Before You Touch!

Several years ago I was introduced to **wild parsnip** (*Pastinaca sativa*). It was growing in the ditch and I was reaching for it when about 4 accompanying family members screamed, "Don't touch! Get back." The plant looked harmless to me like some type of wild carrot, but I learned that day about one more plant I should add to my "don't touch list."

Wild parsnip, or poison parsnip, is not really poisonous; however, it has the ability to cause sun-induced blistering or "burns" on the skin. The sap contains chemicals (furocoumarins) that cause phytophotodermatitis. Basically, if your skin absorbs these chemicals and is then exposed to sunlight, an interaction takes place; the result is reddened burned-like skin and/or blisters. For more information on diagnosing wild parsnip-caused allergic reactions, check out the article, "*Burned by wild parsnip,*" written by David J. Eagan for *Wisconsin Natural Resources Magazine* at https://dnr.wi.gov/wnrmag/html/stories/1999/jun99/parsnip.htm. It's an interesting read. and the pictures will make you a believer that this plant is surely one to avoid.

I now know that wild parsnip can be quickly distinguished from many of its weedy cousins by its yellow flowers. Also, the leaves are pinnately compound, divided once into more than five leaflets with coarsely sawtoothed edges, and they are hairless.

Wild carrot (*Daucus carota*) or Queen Anne's lace, has leaves that are many times pinately compound, finely dissected, and hairy. It also has umbel flowers, but the petals are white not yellow. You can fill vases with the pretty, lacelike flowers and most likely remain blister free. Maybe add food coloring to the water to change the flower color and relive childhood memories. But resist the urge to plant this in your garden as it spreads rampantly.

Poison-hemlock (*Conium maculatum*) is a similar, related species. This time the name is accurate as the entire plant is very poisonous. All parts contain toxic alkaloids that cause respiratory failure when ingested. Also reported are birth defects in livestock. Fortunately, this plant should leave you blister-free also.

Like wild carrot, the clusters of flowers are white but smaller, only 1.5 to 2.5 inches compared to 3 to 6.5 inches. Smell the leaves of wild carrot and you'll smell a carrot-scent. Likewise, wild parsnip smells like a parsnip. Smell a crushed poison-hemlock plant and you'll smell a disagreeable odor. But before you crush it, look at the stems. Poison-hemlock has smooth, purple-spotted, waxy, ridged stems that are hollow between the nodes. Wild carrot stems are quite different: bristly hairy, vertically ribbed, purple-spot-free and not hollow. Wild parsnip stems are usually somewhat hairy and grooved. Stem size makes up for the smaller flowers; poison-hemlock grows erect, 2 to 7 feet tall, while wild carrot usually reaches only 1 to 3 feet in height. Wild parsnip falls in the middle at 2 to 5 feet tall. Poison hemlock is listed in the Illinois Exotic Weed Act.

These three plants are all biennial weeds commonly found in roadsides, waste areas, pastures, meadows, and even landscapes. Each begins as a rosette, bolts in the second year, and produces many seeds. The underground portion consists of a fleshy taproot.

A few more distant cousins – It's a big family

Another member of the Apiaceae family, **spotted waterhemlock** (*Cicuta maculata*), is often confused with wild carrot and poison-hemlock. This plant, however, will have a cluster of fleshy taproots at its base. It is a perennial and is primarily found in wetter areas. All parts of this plant are poisonous if eaten.

Cow parsnip (*Heracleum maximum* or *H. lanatum*) is a biennial that is more common north of I-80. It too tends to be found in wetter areas. This plant reportedly causes dermatitis in humans; cattle can be poisoned by eating the leaves – which are enormous, up to 16 inches long and 12 inches wide! Fortunately, it's not considered to be very invasive or weedy and is actually a somewhat conservative native species.

One last quite impressive relative is **giant hogweed** (*H. mantegazzianum*). What is so impressive? Its massive size – 10 to 15 feet tall! It makes cow parsnip at only 4 to 5 feet tall look like a dwarf. This Illinois listed Exotic Weed and Federally listed noxious weed also causes large painful blisters! Pictures of blisters and burns abound on the internet. Graphic pictures cannot be unseen, but they will convince and remind you that giant hogweed is quite dangerous. This plant is rare in Illinois, but there have been a few reported sightings of this plant in the northeastern part of the state. If you believe you have giant hogweed, please DO NOT TOUCH it, says Kelly Estes, State Survey Coordinator for the Illinois Cooperative Agricultural Pest Survey Program. You can report sightings to her at kcook8@illinois.edu or to Chris Evans at cwevans@illinois.edu. Pictures of the leaves, flower heads, and stem will help Kelly and Chris with identification. Contacting the Department of Agriculture is also advisable.

Although many of the plants in this family have friendly sounding names, they can be fooling. Always handle unfamiliar plants with caution. A good weed ID book can be beneficial. Chris and Kelly have created a nice guide to assist with identifying many of the species discussed in this article: https://uofi.app.box.com/v/GiantHogweedID

While hand pulling or working around plants that cause skin conditions, wear long pants, long sleeves and gloves. Working after sunset can help prevent blistering and burns too. While mowing can reduce seed production, string trimmers are not recommended as small pieces can be thrown towards unprotected skin easily. Applying a herbicide to the rosette in the early fall or late spring can control many in this family. Repeat applications may be necessary. Suggested options include 2,4-D, dicamba, triclopyr, MCPP, MCPA, or metsulfuron. Spot treatments of glyphosate can be effective as well. As always, carefully read and follow all label directions. (*Michelle Wiesbrook*)

Fire Blight

Fire blight is a bacterial disease that infects approximately 75 different species of plants, all in the Rosaceae family. Apples, pears, crabapples, and ornamental pears are the most seriously affected species. Other rosaceous hosts include: cotoneaster, hawthorn, quince, firethorn, and mountain-ash.

Affected trees have water-soaked or wilted new growth at the branch tip that quickly turns brown to black and remains attached to the stem. Frequently, the tip of the blighted shoot bends over and forms a distinctive diagnostic feature that resembles a shepherd's crook. Symptoms are similar to frost injury. Cankers also develop in the wood of infected stems and branches.
Fire blight is caused by a bacterium (*Erwinia amylovora*). The pathogen overwinters in living tissue at the margins of trunk and branch cankers that were formed by infections initiated in previous years. The disease can cause numerous cankers on a single tree. Not all cankers survive the winter, but few that persist produce millions of bacteria capable of causing new infections. Rain or insects may move the bacterium from cankers to open blossoms, vigorous shoot tips, and leaves. Fire Blight outbreaks sometimes occur following severe storms. Gusty winds and hail cause wound the trees creating an entry point for the pathogen. The bulk of the infections occur during flowering when temperatures are warm (optimal 76°F) and conditions are wet. These conditions also encourage rapid disease development.

No single method is adequate to effectively control fire blight. A combination of practices will be needed to reduce the severity of the disease. An important step to controlling this fire blight is avoiding highly susceptible cultivars. Prior to planting new trees, research and select plants and cultivars known to have good to excellent fire blight resistance. When selecting crabapples, also consider other common diseases such as apple scab and cedar rusts. For existing infections, prune out infected wood in the dormant season, if you can wait. If not, prune in an extended dry period and disinfect pruning tools after every cut. The bacterium may have extended down the stem ahead of the canker. Unfortunately this means wood should be removed 8-10 inches below the edge of the visible canker. Chemical options are limited, especially for homeowners and the timing of sprays are also critical. Commercial growers apply copper products in the dormant season and streptomycin at 4-5 day intervals throughout bloom. Fertilization and watering are not recommended. Such practices will promote lush growth, which is

more susceptible to infection by the fire blight bacterium. (*Travis Cleveland*)

Communication and the Illinois Lawn Care Application Notice Act

As a landscape professional, communicating with our client should be first. The relationship that we build with our client yields trust that can yield a continuous business. The communication we have with them should be informative, and timely. The time that we spend with them is important so that we can gather their needs or wants and also be able to inform them of our procedures. This can be easy to do with single family units but as we look at more commercial settings it isn't so easy to have that one on one conversations. In Illinois, there is a very specific requirements for communicating to clients when a lawn care product has been applied. The Illinois Lawn Care Application and Notice Act, is in place so that regardless of a personal conversation, a client or residents are immediately notified of an application has been made and a way to get a hold of you in order to ask any questions they might have in regards to what was applied, reentry intervals, safety data sheets or risks to animals.

The Lawn Care Application and Notice Act is found via the following link- http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1597&ChapterID=36 Below is a condensed version for just lawn care applicators.

According to the Lawn Care Products Application and Notice Act and Rules, lawn markers are to be placed immediately following an application of lawn care products. Under the law, both fertilizers and pesticides are considered lawn care products. This includes even products that are registered to use for Organic.

If you are under contract to treat the common areas of a townhouse subdivision, you need to post the lawn markers immediately after you treat the main entrance areas (usual points of entry). Do not wait to post until the entire subdivision has been treated. Single-family residences are much simpler, because they have a single point of entry and the placing of lawn markers is done immediately following the treatment.

In Illinois, there are very specific requirements for the size and color of the lawn markers. The marker must be a 4-inch by 5-inch sign attached to a dowel or other support, extending no less than 12 inches above the turf. Regardless of what your company's colors are, the lawn marker must be white with contrasting colored lettering and the lettering height must not be less than 3/8 inch. Each lawn marker must state the following:

"LAWN CARE APPLICATION – STAY OFF GRASS UNTIL DRY – FOR MORE INFORMATION CONTACT:" (your business name and telephone number should be inserted). Lawn Markers are required immediately after an application of the lawn care application of a product. The lawn marker must be put at the point or points of entry.

These markers alert costumers and nearby residents than application has been made to the lawn and provide contact information to ask about what was applied to the lawn. As a lawn care applicator it is your responsibility to pro-

vide accurate information to the ones that call or make an inquiry. The information that you provide includes

1. Name brand of product, common name and scientific name
2. Type of fertilizer or pesticide (regardless of organic or synthetic)
3. The reason that you used the product applied
4. The amount applied
5. Any special information that might apply to the costumer- Reentry, animal restrictions, or pre harvest intervals
6. The business name and phone number as well as the name of applicator that made the application.
7. They may request the Material Safety Data Sheet and a copy of approved product label.

The time we take to discuss these with the people that call can build a lasting relationship and trust. It allows for clients to have peace of mind and know that when they set out for a walk with their dog or have their children romp in the yard that they are keeping them safe. Remember regardless of organic, if it is a fertilizer or a pesticide the same rules apply. If you should have any questions, please feel to contact the Pesticide Safety Education Program or the Illinois Department of Agriculture. (*Maria Turner*)