

Number 5 - May 30, 2017

Modified Growing Degree Days (Base 50°F, March 1 through May 25)

Station Location	Actual Total	Historical Average (11 year)	One-Week Projection	Two-Week Projection
Freeport	411	390	493	590
St. Charles	404	372	480	570
DeKalb	424	430	512	615
Monmouth	596	482	686	794
Peoria	691	518	784	895
Champaign	607	527	706	823
Springfield	780	590	888	1011
Perry	775	556	872	986
Brownstown	840	647	953	1082
Belleville	869	678	986	1115
Rend Lake	931	733	1055	1193
Carbondale	879	693	998	1130
Dixon Springs	972	749	1095	1231

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)

Viburnum Leaf Beetle Update

In the [May 8th issue](#) of the Home, Yard and Garden Pest Newsletter, we shared

that initial reports of viburnum leaf beetle activity were observed in Illinois. Since that time, we have continued to receive reports out of Cook and DuPage counties of severe viburnum leaf beetle larval feeding, resulting in the defoliation in several areas of those counties. While we are always interested in pests that are being found in yards and gardens, with the viburnum leaf beetle, as we move forward, we are most interested in knowing about areas outside of Cook and DuPage counties. To confirm pest populations as “new” in a county, please send a photo or insect sample to Kelly Estes at the Illinois Natural History Survey - Cooperative Agricultural Pest Survey kcook8@illinois.edu. *(Kelly Estes)*

Goutweed

Every spring, I am asked about Goutweed, also known as Bishop’s Weed or Snow-on-the-Mountain (*Aegopodium podagraria*). This plant isn’t your typical *weed* but it is an aggressive groundcover that can be invasive and difficult to control.

This Parsley family perennial was introduced from Europe and Northern Asia in the mid 1800’s. In the middle ages, monks cultivated it for treating gout; hence the name. It thrives in moist, well drained soils in partial sun to full shade. It reaches 4-12 inches in height. The leaves, which rise directly from the crown, are compound with 3-9 ovate,

toothed leaflets. Leaf edges are often white. Flowers appear in June typically, on 18 inch tall stalks. Flowers are small and white in dense, flat-topped clusters 3" wide, similar to that of its relative Queen Anne's Lace.

Sold as a variegated groundcover, this plant will indeed fill in empty garden spaces and can revert back to one shade of pale green. However, when left to roam free with no barriers, this plant will grow with reckless abandon. Eventually, homeowners decide they've had enough and are ready for a change in their landscape design. Then the battle begins with controlling it.

Goutweed is a tough one to eliminate. Remove flower heads prior to seeding so that seed production is prevented. Flowers should be cut and bagged. Plants can be dug up or pulled out of the ground. Rhizomes and pulled plants should be disposed of in the trash – not composted. Be prepared to repeat this process as any underground parts left behind can be rejuvenated and send up new shoots.

Glyphosate can be applied in the spring or summer. Carefully read and follow all label directions. If the growth is older, a string trimmer could be used to first cut the plants short. Then wait a week or so for new growth. Spray the new growth; then keep a close eye on the area. Remove new plants as they appear.

Other non-chemical options to try include covering the area with a landscape fabric or plastic. These options would be better for earlier in the spring however.

Obtain good control before planting into the area. This may take a few weeks, a

second application, a watchful eye, and patience.

In the right setting, goutweed makes a nice groundcover. Still, careful monitoring of the population may be necessary. Years ago, I stumbled across this paragraph online which made me laugh so I saved it. The author had a small patch of it that she had been watching carefully.

"Sometimes I wonder if I should have instructions, something like a living will, taped to the fridge. 'In case of my untimely demise, or if I develop a condition in which I am unable to do so for myself, I hereby state that my survivors or caretakers should eradicate the *Aegopodium* behind the Kousa as soon as possible."

Just now a colleague jokingly suggested the notion of "passive aggressive gardening" for dealing with those "certain neighbors" we may unfortunately encounter from time to time. Goutweed, with its aggressive growth, immediately came to mind as a plant of choice for those particular circumstances. Here's wishing your plants and neighbors are not at all aggressive however.

References:

<https://www.nps.gov/plants/alien/fact/aepo1.htm>

http://hvp.osu.edu/pocketgardener/source/description/ae_raria.html

https://books.google.com/books/about/Invasive_Plants_of_the_Upper_Midwest.html?id=wes4AQAAIAAJ&hl=en

https://books.google.com/books/about/How_to_Eradicate_Invasive_Plants.html?id=6eGpep2BL5QC

(Michelle Wiesbrook)

Sickly Spruce

Does your spruce tree look like it has seen better days? Well, judging by the number spruce samples sent to clinic, you are not the only one. Each spring, the U of I Plant Clinic receives numerous calls, emails, and samples regarding sick/dying spruce trees. The following most commonly diagnosed spruce diseases by the plant clinic:

Rhizosphaera needle cast is a fungal disease capable infecting several conifer species. Spruce species, especially blue Colorado spruce (*Picea pungens* var *glauca*), tend to be the most susceptible, while Norway spruce has some resistance.

Most infections occur during a roughly 2-month period following bud-break. Symptoms, however, do not appear until fall, and are most evident the following spring. Diseased needles will initially be yellow, but then transition to purple or brown color before dropping from the tree (normal, healthy needles remain attached for several years). Premature defoliation results in a thin canopy and branches with tufts of new needles on the branch ends.

Rhizosphaera will generally start low in the tree and advances upward through the canopy. With the aid of a hand lens or microscope, look for fungal fruiting bodies protruding from the needle pores. Fruiting bodies have smooth edges and develop in perfectly aligned rows on the needles. Be aware, the disease symptoms and fruiting bodies can easily be confused with Stigminia needle blight. Several consecutive years of severe Rhizosphaera infections cause the lower branches to die.

To manage this disease, plant less susceptible spruce and evergreen species. Promote good air circulation with adequate plant spacing, pruning lower limbs and weed management. Some formulations of chlorothalonil, mancozeb, and copper hydroxide are labeled to control Rhizosphaera and other needle cast diseases. Fungicides protect new growth from infection and may help restore moderately infected trees to good appearance. At least 2 years of fungicide applications are required. Read the labels carefully. Some chlorothalonil formulation have label restrictions that advise "DO NOT use on blue spruce." I suspect the product may cause the needles to lose their desirable blue color.

Stigmina Needle Blight is caused by *Stigmina lautii*, another fungal organism that we have seen a lot of during the last several years. Unfortunately, there has not been a lot of research on this fungus, so it is not known if it is a disease pathogen or an opportunistic fungus infecting stressed plants.

The symptoms and fungal fruiting bodies of *Stigmina* are similar to those listed for Rhizosphaera needle cast. One difference is that the fruiting bodies of *Stigmina* appear to have tendrils giving them a spider or mite-like appearance (may require a bit of imagination). If your spruce is diagnosed with this *Stigmina*, you should try to relieve any potential tree stresses. Conflicting reports have indicated limited success with fungicides for control of the *Stigmina*.

(SNEED) Sudden Needle Drop (also sometimes called Spruce Needle Drop) has been found on Norway, white (Black Hills) and blue Colorado spruce trees.

The fungus *Setomelanomma holmii* has been found associated with symptoms of sudden needle drop, but it has not been proven that this fungus is the cause of the SNEED.

Symptoms of SNEED are yellowing and eventual browning of older needles. Affected branches may be scattered through the canopy. By autumn, all of the needles on the affected branches fall off except the newest needles on the tips of the branches. Eventually the canopy of the tree thins, sometimes leaving bare branches.

SNEED is nearly impossible to diagnose without the aid of a plant diagnostic lab. This is because it can only be identified by looking at the spores under a compound microscope. The fungus produces small, black, round spore-producing structures on the stems and bud scales of affected spruce. However, other harmless fungi growing on spruce trees also produce similar small black structures on spruce branches.

Cytospora (Leucostoma) canker is a fungal disease on stressed spruce trees. The disease is most damaging to blue Colorado spruce. The first noticeable symptom is sporadic branch dieback. Closer examination of symptomatic branches often reveals bark with small, white patches of dried sap and resin. Cankered areas may be close to the base of tree limbs. These cankered areas eventually girdle the branch and cause branch death.

Unfortunately, there are no effective chemical controls for cytospora canker. Management for this disease starts with sanitation. Prune out infected branches in late winter or during periods of dry weather. Sanitation may require several

years of pruning and monitoring for new canker development. Other control options focus on alleviating any tree stress and improving tree vitality. Water during drought. Apply an organic mulch under the full spread of the branches. (Travis Cleveland)

Armyworm

Large flights of armyworm moths have been reported this spring. Be watchful for armyworms and their damage in turf. When they are numerous, they can eat off every blade of grass in several thousand square feet of turf per night. In the evening you have nice, green turf, and in the morning all you have are crowns and thatch.

True armyworm caterpillars grow to about 1-1/2 inch long. Mature larvae are brown to black with five orange stripes, one down the back and two on each side. Small caterpillars are dark in color with less noticeable stripes. Caterpillars hide in the thatch during the day and come out to feed at night.

Armyworms spend the winter in the southern United States, and the moths fly north in the spring. Armyworm moths are about 1 inch long with tan to grayish-brown wings. Each front wing has a single white dot near the center. The female moth lays her white eggs in rows or groups on grass blades and rolls the grass blade around them. There are usually two generations per year in Illinois. Moths are very numerous in Illinois in the fall, being one of the last moths seen around lights at night as winter approaches.

In the spring, caterpillars may become numerous in wheat and then move from

those fields into nearby turf areas as the wheat matures and turns brown. This is the most common damage scenario in turf, with the damage being in housing areas and golf courses next to farming operations.

The second generation occurs in late summer. Typically, this generation is attacked heavily by tachinid flies. White eggs, usually laid on the back just behind the caterpillar's head, hatch into legless maggots that tunnel into and eat out the caterpillar's insides. When fully grown, the maggots leave the caterpillar carcass to pupate and emerge as adult flies similar in appearance to house flies. Armyworm is also attacked by a disease that causes the caterpillars to die while clutching a grass blade or stem.

As mentioned before, the caterpillars feed at night. Typically they move in large numbers like an army across turf, eating all of the green grass blades. Frequently, they will eat half of a home lawn in one night, eating the rest of it the next night. Because only the blades are eaten, irrigation helps the grass crowns grow new grass blades quickly.

Scout with a disclosing solution. Mix a teaspoon of 5% pyrethrin insecticide or a tablespoon of dish-washing soap in a gallon of water. Distribute this evenly with a watering can or other method over a square foot of turf. Any armyworms or other caterpillars present should come to the surface within a minute or two. Two to three or more caterpillars per square foot are enough to cause damage.

Control can be accomplished with a treatment of bifenthrin (Talstar), carbaryl (Sevin), chlorantriliprole

(Acelepryn), cyantraniliprole (Ference), indoxacarb (Provaunt), spinosad (Conserve), , or other labeled insecticide. Insecticidal nematodes, either *Steinernema carpocapsae* (BioSafe) or *Heterorhabditis bacteriophora* (Cruiser), should also be effective. (Phil Nixon)

Viburnum Leaf Beetle

Obvious damage by viburnum leaf beetle is being found in northern Illinois. Eggs overwinter and hatch in May into yellow to brown larvae with black dots which feed on the undersides of viburnum leaves. The feeding damage is very characteristic as both the larvae and adults eat elongated oval areas of leaf tissue between lateral veins, creating an interesting angling damage pattern on heavily attacked leaves. Heavily attacked shrubs are defoliated, and those defoliated two to three years in succession are likely to die.

Larvae grow to about one-third inch long and drop to the soil to pupate, emerging as adult beetles in July to feed on the leaves through the rest of the summer. Adult beetles are a drab shade of yellow-green to brown and are one-quarter to one-third inch long.

Female beetles lay eggs into one-eighth inch diameter pits that they chew in rows into small twigs, primarily twigs produced earlier in the year. They cover the eggs with frass, a mixture of fecal matter and wood and bark fragments, whose appearance is different from the surrounding bark when deposited. Over time, the color difference becomes less obvious. These eggs hatch the following spring.

Many viburnum species are fed upon, but the insect prefers species whose leaves are less hairy such as European cranberrybush, American cranberrybush, and arrowwood viburnum. Damage is reduced by planting less preferred viburnum species such as Koreanspice, Burkwood, Judd, carlcephalum, leatherleaf, lantanphyllum, Japanese snowball, tea, and Siebold viburnums. Other viburnums are intermediate in feeding preference.

Pruning and destroying twigs containing eggs in the fall and winter reduces larval numbers the following spring. Acephate (Orthene), carbaryl (Sevin), cyfluthrin (Tempo), imidacloprid (Merit), lambda-cyhalothrin (Scimitar), spinosad (Conserve), and malathion are effective. A spray application to young larvae in the spring is most effective in preventing damage. A second spray may be needed later in the growing season to control heavy adult feeding. (Phil Nixon)

Cinara Conifer Aphids

Conifers get aphids like other plants, but those aphids in the genus *Cinara* are capable of killing branches and even small trees when numerous. We have received some recent damage reports.

Aphids in the genus *Cinara* are typically orange, tan, brown or black. The green spruce aphid is actually orange. Some have white markings. They tend to be long-legged and more active than other

aphids causing some people to casually identify them as spiders. Others flatten against the stem, allowing them to over-looked as fascicle scales. Some species are one-sixth inch long, making them larger than most aphids.

Most feed on stems and branches, producing large amounts of honeydew. The honeydew causes branches, needles, and areas below trees to be sticky. Black sooty mold grows on the honeydew to the point that blackish needles or branches are useful in scouting for aphids and other sap-sucking insects.

The white pine aphid, *Cinara strobi*, is familiar to many for the black eggs laid in the fall along the needles of white pine. The eggs are obvious on Christmas trees and will hatch if the tree is kept in warm, indoor conditions for several weeks. Homeowners who have this occur typically refer to them as spiders, although spider eggs on Christmas trees can also hatch. In both cases, hatch typically occurs on trees left indoors from Thanksgiving to well after New Year's Day. More importantly than the aphids and spiders, these dried out trees become fire hazards.

There are *Cinara* species that feed on spruces, Douglas-fir, true firs, arborvitae, Eastern red cedar, other junipers, true cedars, cypress, and other pines. They are easily controlled with many labeled insecticides. Unfortunately, even heavy infestations easily go unnoticed until severe damage has occurred. (Phil Nixon)