

Number 7 - June 12, 2017

Rose Chafer

Rose chafer adults have emerged in Illinois, although damaging numbers are unlikely except in areas with sandy soils such as the Kankakee, Will, and Mason County areas. Adults live for about one month. They contain a heart toxin that can kill birds and mammals that eat them.

Rose chafer adults are five-sixteenths to one-half inch long beetles with long, orange legs. The thorax and elytra (wing covers) are light green, brown or gray. They feed heavily on the blossoms of rose, peony, and linden. Rose chafer adults also feed on the leaves of grape, Virginia creeper, birch, crabapple, linden, and other trees and shrubs, causing skeletonizing damage by eating the leaf lamina but leaving the veins behind. They eat the fruit of grape, strawberry, and raspberry.

After feeding and mating, females tunnel into sandy soil to lay their eggs. The eggs hatch into white grubs that feed on the roots of grasses and other plants without causing obvious damage. The grubs overwinter in the soil, feeding for a short time in spring before pupating. Mature grubs are whitish, about three-fourths inch long, and have six legs. Adults emerge in late May and June.

Adults are so busy feeding and mating that they are easily hand-picked and killed in a jar containing rubbing alcohol

or soapy water. One to two sprays of carbaryl (Sevin), bifenthrin (Onyx), cyfluthrin (Tempo), permethrin (Astro), or other labeled insecticide are effective. Be careful not to spray blossoms to avoid damaging pollinators. (*Phil Nixon*)

Bagworm

It is time to treat for bagworms in southern Illinois. Bagworms are just hatching in central Illinois, and they will hatch in northern Illinois by late June. Upon hatching, young caterpillars crawl out of their mother's bag where the eggs were laid and crawl upward. They get to the top of the tree and spin out silk, creating a long streamer that catches in the wind, carrying the young bagworm to new hosts.

After a couple of weeks of doing little feeding and lots of ballooning, they settle down to feed in earnest. Bagworms are about one-quarter inch long with typical bags when they start feeding. Ballooning bagworms are smaller and either have no bags or conical ones that look somewhat like brown hats.

They feed from the top of the tree down, the result of still using that drive to climb to the top of wherever they find themselves. They prefer to feed on arborvitae, Eastern red cedar, other junipers, and spruce. They also feed on deciduous trees including crabapple,

maple, and oak. Feeding on deciduous trees is less common as one moves north through Illinois, being common in southern Illinois and scarce in northern Illinois. They are by nature polyphagous, feeding on many kinds of trees and shrubs. After all, when you are blown where the wind takes you, you better eat whatever you land on.

Early bagworm feeding damage will appear as scarifying of the needle or leaf epidermis with internal mesophyll tissue eaten. Damaged foliage is lighter green at first and then whitish to brownish as the exposed and damaged cells die. As the bagworms get older and bigger, they eat entire leaves.

As long as the caterpillar is feeding, it adds silk to the top of the bags and places bits of host foliage around the top of the bag until its spindle-shaped bag reaches about one and one-half inches long. Once it has pupated or died, this practice stops and the top of the bags turn from green to brown. This is useful in scouting because pupated bagworms are not susceptible to insecticide sprays, and killed bagworms do not fall from the tree.

The bagworms feed through the summer until pupating in late summer. Pupation ranges from mid-August to very early September. Adult male bagworms are about 1/2-inch-long black moths with clear wings. Adult female bagworms are larviform; that is, they appear similar to the caterpillars. The non-feeding males fly from bag to bag, mating with the females inside through the bottom of the bag. The nonfeeding females fill most of their bodies with eggs and die in the bag. Each female bag contains 300 to 1,000 eggs.

Because bagworm eggs overwinter in the old bags, an effective control measure on shrubs and smaller trees is to handpick the bags from September through May and destroy them. The eggs in bags dropped to the ground will hatch, and the larvae will climb the nearest upright object to balloon. Handpicking feeding larval bags is also effective.

Scout for early scarifying damage at the top of susceptible hosts. It should show up in mid-June to early July, being earlier in southern Illinois and successively later as one goes north. If you wait until ballooning ends, one insecticide application will be effective. Sprays of *Bacillus thuringiensis kurstaki* (Dipel, Thuricide, others) and spinosad (Conserve) are effective and selective, causing less damage to pollinators and other non-pest insects. They are also organic. Other effective insecticides include cyfluthrin (Tempo), permethrin (Astro), acetamiprid (TriStar), indoxacarb (Provaunt), and chlorantroniliprole (Acelepryn). (Phil Nixon)

Modified Growing Degree Days (Base 50°F, March 1 through June 8)

Station Location	Actual Total	Historical Average (11 year)	One-Week Projection	Two-Week Projection
Freeport	643	569	772	923
St. Charles	616	538	736	878
DeKalb	660	621	793	948
Monmouth	873	681	1010	1165
Peoria	975	722	1115	1276
Champaign	879	744	1026	1192
Springfield	1101	822	1253	1425
Perry	1070	767	1211	1370
Brownstown	1155	890	1311	1485
Belleville	1178	924	1324	1490
Rend Lake	1259	996	1422	1604
Carbondale	1178	945	1331	1500
Dixon Springs	1282	1009	1439	1611

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)

Gymnosporangium Rusts

I covered [Gymnosporangium rusts on Eastern Red Cedar](#) in Issue 2 of this newsletter. That article focused on infections of evergreen hosts. We are now seeing symptoms on many rosaceous plants, which serve as alternate hosts. Apples, crabapples, hawthorns and quince are some of the more commonly affected plants. Symptoms vary depending on the host plant and the rust species involved.

Three common cedar rust diseases occur in Illinois:

- Cedar-apple rust (*Gymnosporangium juniperi-virginianae*)
- Cedar-hawthorn rust (*Gymnosporangium globosum*)
- Cedar-quince rust (*Gymnosporangium clavipes*)

Cedar-apple rust is the most common of the above three. Infections can occur on leaves, fruits and twigs of apples and crabapples. For ornamental trees, leaf symptoms are more of a problem than affected stems and fruits. Leaf symp-

toms first appear in May and June as pale yellow spots on the upper leaf surface. The spots eventually enlarge and turn orange in color. They will also begin to appear on the underside of the leaf eventually forming tube-like structures (aecia). Infections may result in yellowing leaves and defoliation.

Cedar-hawthorn rust can infect several species within the rose family and can cause similar foliar symptoms to cedar-apple rust. The pathogen is considered minor on apple, crabapple, serviceberry and pears. However, the pathogen can cause severe disease on certain hawthorn species (*Crataegus spp.*). The downy hawthorn (*C. mollis*) is considered very susceptible to this disease, while infections seem to be less severe on hawthorn species with glossy leaf surfaces (*C. crusgalli*, *C. viridis* 'Winter King'). This rust disease most often affects leaves, causing yellow spots that enlarge eventually and develop a gray-brown color. Severely infected hawthorn leaves often turn bright yellow before dropping prematurely. This pathogen can also damage fruits and twigs. However, this type of injury is more likely the result of cedar-quince rust.

Cedar-quince rust will also infect various members of the rose family. Serviceberry, chokeberry, quince, hawthorn, and apple are some of the more noteworthy hosts. Leaf symptoms for this disease are limited to infections of petioles and veins. This pathogen causes noticeable damage to stems, thorns and fruits of susceptible species. Stems and thorns may become enlarged and deformed. Fungal aecia cover infected fruit, giving them an orange, fringed appearance.

Control

Both juniper and hawthorn are necessary for these diseases to occur. Removing any unwanted junipers from landscape, or at least the infected juniper branches may help reduce the occurrence of the disease. However, it may not be a practical management tool to separate the hawthorns from their alternate host (junipers), since spores may still blow in from neighboring properties. If cedar rust diseases are a yearly problem, consider protecting high-value plants with fungicides. It is too late to protect this year's growth. Mark your calendars with a reminder to apply fungicides early next spring to protect new growth. (*Travis Cleveland*)

Pellitory

It was nowhere and suddenly it is everywhere. Perhaps you've noticed it too. I was unfamiliar with this weed until about two years ago when a groundskeeper inquired about it saying that it was all over campus in the landscape beds. Sure enough it was. We were both stumped as to what it was and thus turned to the INHS botanists for assistance. Only one of my typical go to weed ID reference books include this weed, *Weeds of the Nebraska and the Great Plains*, yet this plant can be found across the country.

Pellitory (*Parietaria pensylvanica*), or Pennsylvania Pellitory as it is also

known, is typically thought of as being a woodland plant that forms colonies. Another name for this plant is Up Against the Wall Weed because it is known to grow in the cracks of walls. I've seen it growing happily out and up the sides of a straw bale garden. The hint of cucumber smell has resulted in some calling it Cucumber Weed. Some describe this weed as being sticky or adherent to the skin, thus the nickname "Sticky-weed". There are a few species of *Parietaria*, however, which are similar in appearance.

Pellitory is in the nettle family, *Urticaceae*, but lacks stinging hairs. It grows 6 to 18 inches tall with a central, unbranched, 4-angled stem. Leaves are alternate and lanceolate. Both leaves and stems are pubescent. Flowers occur on the stem, are green with no petals, are seen in the summer, and last 2 to 3 months.

Pennsylvania Pellitory is native and prefers light shade but will tolerate full sun. It is found in both natural and disturbed sites. Reproduction is by seed, which can be rampant. Therefore, in a landscape bed situation, preventing seed production is important for control. They can be pulled or hoed out easily.

For more information:

http://www.illinoiswildflowers.info/wodland/plants/pn_pellitory.htm

<https://plants.usda.gov/core/profile?symbol=pape5>

(*Michelle Wiesbrook*)