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Planthoppers

We have been receiving reports of planthoppers and woolly aphids, particularly on ash, in various areas of the state. Both of these insects are covered with and leave behind white, fluffy tufts of waxy strands that get stuck on leaves and stems by the honeydew that these insects excrete. They are unlikely to cause enough damage to warrant control, but can be controlled by the insecticides in the following woolly aphid article.

Planthoppers that are common in Illinois include *Metcalfa pruinosa*, *Acanalonia conica*, and *Anormenis chloris*. Nymphs of various species are found on many species of trees and shrubs, as well as some herbaceous perennials. They are probably most common on blackberry, rose, and hosta. They feed on plant sap with many species producing honeydew, plant sap that has had the nitrogen and much of the water removed by the digestive system before being excreted. The feeding causes little apparent damage to the plant, although heavy feeding on hosta causes stunting and reduced bloom.

The nymphs hatch from eggs inserted into plant stems in the spring. They tend to feed in groups and are covered with white flocculent that probably reduces moisture loss and provides protection from predators. Mature nymphs molt

into adults which fly away, leaving numerous strands of white flocculent behind. Being adhered to the plant by honeydew, it persists for several weeks.

Adults are typically about one-quarter inch long and half as high. They sit on the stems, appearing like small leaves or flower petals. *Metcalfa pruinosa* is purplish as an adult, appearing somewhat like a dying, shriveled leaf. *Acanalonia conica* is green as an adult, appearing like a young leaf or leafy bract. *Anormenis chloris* is light green to white, appearing like young leaves or whitish flowers. They feed on sap as well. (Phil Nixon)

Woolly Aphids

Adult woolly aphids appear as flying lint, tiny drifting angels, or white fuzzies, close to ¼ inch in diameter, which seem to float through the air. If you try to catch one, you soon realize that it is capable of powered flight. These aphids are green to blue and covered with white waxy strands that stand out from the body.

Woolly aphids typically feed on two hosts during a 1-year period, with most species apparently having to switch hosts. This host-switching occurs in various species from late June to late July, and these fuzzy female adults are their means of getting to the other host. Once reaching their summer host, they

feed and give birth to additional wingless generations of females, producing winged individuals that fly back to the other host in the fall to lay eggs. These eggs hatch in the spring into females that give birth to more wingless generations of females, producing the winged females that switch hosts.

There are several species of these woolly aphids in Illinois. The woolly apple aphid feeds in the spring on apple, pear, hawthorn, and mountainash leaves and then moves to elm leaves for the summer. Woolly elm aphid feeds on elm leaves in spring and then moves to serviceberry, where it feeds on the roots for the summer. Woolly alder aphid feeds on alder and then silver maple. There are also the woolly elm bark aphid, beech blight aphid, *Prociphilus tessellatus* (ash host), and *Prociphilus corrugatus* (serviceberry host) that do not apparently switch hosts. We have recently been seeing woolly aphids on ash.

These insects are more curiosities than pests. Occasionally, a host will experience enough leaf curling and honeydew production to warrant aesthetic control, and woolly elm aphid can damage serviceberry roots. Many insecticides are effective against them while on leaves, including many pyrethroids, imidacloprid, and insecticidal soap. The woolly elm aphid can be controlled on elm leaves to reduce serviceberry root damage later. (Phil Nixon)

Common Cedar Rust Disease of Illinois

There are three common rust diseases found in the landscape that use cedar (*Juniperus spp.*) as an alternate host:

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

In Illinois, **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 symptoms 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 (aceia). 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 damage is more often caused by 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. Infected fruit may be covered with fungal aecia, giving them a striking, 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 nearby or neighboring properties. Protection with fungicides is an option that may be considered if these rusts are problems on specimen or high-value trees. Fungicides should be applied in the spring to protect new growth and developing fruit. (*Travis Cleveland*)

“Keeping Up” with the U of I Plant Clinic

I was recently asked the question, “How can I keep up with the U of I Plant Clinic and the latest research on plant problem management?” I was relieved to receive such an easy question. The answer to this question is social media! The U of I Plant Clinic has a Facebook page called, The University of Illinois Plant Clinic,

which can be accessed at:

<https://www.facebook.com/UofIPlantClinic> The same information that is shared on our Facebook page can also be seen by following @skporter on Twitter.

What does the U of I Plant Clinic post/share on Facebook or tweet on Twitter?

- Pictures of recent plant samples received at the Plant Clinic
- Articles from the Home, Yard, and Garden Newsletter as well as other Newsletters from the University of Illinois and other research institutions
- University of Illinois Plant Clinic Blog posts
- Questions with answers that have recently been received at the U of I Plant Clinic
- Posts from other Plant Clinics in the U.S. or around the world
- University of Illinois Pesticide Safety Education Program Information
- University of Illinois Extension information
- Updates from the U of I CAPS Program – Pest Surveys at the Illinois History Survey
- Press Releases
- Invasive Species Information
- Program and Webinar information

How often does the U of I Plant Clinic post or tweet?

The U of I Plant Clinic will post or tweet around 7 times each day, during the week. The U of I Plant Clinic does not usually offer any social media on

weekends or holidays. These posts/tweets can be easily accessed by checking your social media account on a regular basis. On Twitter you can choose to “turn on mobile” notifications, so that you can be alerted via your phone when the U of I Plant Clinic has tweeted daily information.

Why should you follow the U of I Plant Clinic on Facebook or Twitter?

By utilizing social media, the U of I Plant Clinic can quickly send out information pertaining to plant problems in a timely manner, so that you can act fast. The latest research regarding integrated pest management of weeds, insects, and diseases can be easily viewed in your home on your computer or in the field on your phone or other hand held device with internet access. The U of I Plant Clinic social media following continues to grow each day and we hope that you will choose to follow us too, so that you can “keep up” with the latest plant problem issues and information.
(Stephanie Porter)

Common Purslane – Blessing or Bane?

I’ve always found common purslane (*Portulaca oleracea*) to be an interesting plant. Some will curse its appearance in their garden and others will embrace it. Again, we are reminded that a weed is only a weed if it is unwanted where it is growing. The primary redeeming quality to purslane is that it is edible. Ironically, one weed book I have calls it a “good weed.”

Common purslane is typically a late-germinating summer annual broadleaf

weed. However, I have had reports of it germinating already this year. The stems are succulent (juicy if you will), smooth, often reddish, and prostrate. They can reach to approximately 24 inches in length and form a prostrate mat. The leaves are thick, fleshy, shiny, and smooth. They are alternate to nearly opposite, rounded at the tip and narrowed at the base, and up to 1¼ in. long. They are often clustered near the ends of branches. Overall, this plant is very reminiscent of a jade plant.

The flowers are yellow with 5 petals, borne individually in the leaf axils or clustered at the ends of branches. They appear July through September. The fruit is a globular capsule that splits at the middle.

This weed is extremely common in cultivated areas, such as gardens, bare-soil areas in landscape beds, and cultivated nursery fields. It thrives in sunny, fertile, sandy soils but will tolerate poor, compacted soils. Common purslane is extremely drought resistant; in fact it thrives in hot dry conditions. After last year’s drought, we are likely to see an increase in populations of it this year. It is almost impossible to control through cultivation alone. Actually, cultivation will propagate (multiply) this plant. Before you till your garden, be sure to check for the presence of this weed. Timely proper identification is important.

The root system consists of a long taproot with fibrous lateral roots. It is fairly shallow, so hand pulling is fairly easy. Cutting with a hoe at the base of the plant is also effective. There is one note of importance here: Stems will root wherever so don’t leave plant fragments

lying after weeding or you will be weeding again shortly. An older client told me once of how her mother would send her out to weed with two collection bags – one was for the “fat” weeds -- purslane.

Common purslane grows well in sunny spots and tight crevices. Years ago, I was hired to do some weeding for a home gardener. I was fresh out of college and armed with the knowledge that this species was indeed a weed. Low and behold she had a lot of it growing in between the pavers of her patio. I was surprised to be told that she was encouraging it to grow there and that I should leave the area alone. The site was perfect for growing it. Why fight it? She planned to eat it instead. Brilliant! The leaves can be eaten cooked or raw and they are reportedly rich in omega-3 fatty acids and beta-carotene as well as high in magnesium, potassium and some other nutrients. They have a slightly sour taste and are considered to be a delicacy in certain parts of the world.

On the other hand if you are not interested in having a population of common purslane in your garden, landscape or lawn, prevention is a good tactic. Remove or kill plants before they produce seed. In a landscape bed, mulch can be effective. In a vegetable garden, newspapers, black plastic and grass clippings are a few “ground covers” that can be used to prevent seed germination. For lawns, raise the mowing height if practical to shade out this weed. Adjust your cultural practices in order to encourage better growth of the turf and to make it more competitive.

Several herbicides are labeled for controlling common purslane. Preemergence herbicides could still be applied if emergence has not occurred. If plants are up and ready to take over your location, you can use a postemergent herbicide. For lawns, these herbicides can be used: dicamba, dithiopyr, pendimethalin, prodiamine. For vegetable gardens, trifluralin or napropamide may be tried. In landscape beds, pendimethalin, oryzalin, and trifluralin will provide effective control. Additionally, spot applications of glyphosate can be effective. Other herbicides may be used as long as the label allows it and includes common purslane in the list of target pests. Be sure to carefully read and follow all pesticide label directions. *(Michelle Wiesbrook)*

Modified Growing Degree Days (Base 50°F, March 1 through June 6)

Station Location	Actual Temp.	Historical Average (11 year)	One-Week Projection	Two-Week Projection
Freeport	544	539	663	810
St. Charles	564	509	675	812
DeKalb	569	589	693	843
Monmouth	629	648	757	909
Peoria	665	687	797	953
Champaign	723	708	861	1024
Springfield	764	784	907	1075
Brownstown	778	850	926	1096
Belleville	826	885	967	1127
Rend Lake	905	954	1061	1239
Carbondale	890	904	1038	1204
Dixon Springs	908	968	1059	1228

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 University Of Illinois Department Of Crop Sciences and the Illinois Water Survey). (Kelly Estes)

Invasive Species Spotlight: Viburnum Leaf Beetle

Viburnum is one of America's most popular shrubs because of its beautiful flowers and wildlife attracting berries. However, this pretty plant is being threatened by the invasive Viburnum Leaf Beetle (*Pyrrhalta viburni*), a native of Europe that has been moved to North America on infected viburnums. It is now established in several states in the northeast and has now been found in several Midwestern states.

Viburnum leaf beetles overwinter as eggs on twigs of the host plant. Feeding is limited to species of viburnum. The viburnum leaf beetles have a preference for viburnums with little hair (pubescence) on the foliage, including the European cranberrybush viburnum, arrowwood viburnum, and American cranberrybush viburnum. They also feed on wayferringtree viburnum, Rafinisque viburnum, mapleleaf viburnum, nannyberry viburnum, and Sargent viburnum. There are several resistant varieties, including Koreanspice viburnum, Burkwood viburnum, doublefile viburnum, Judd viburnum,

lanatanaphyllum viburnum, and leatherleaf viburnum.

In May, larvae hatch from the overwintered eggs and begin feeding on host plants. They are usually found feeding in groups. Between early and mid-June, larvae drop to the ground and pupate. They remain in the ground for about 10 days. Adult emergence generally occurs from mid- to late July.

The adult beetle is small, $\frac{1}{4}$ to $\frac{3}{8}$ of an inch long and is a golden brown color with sheen when in sunlight. The larvae are greenish- yellow and develop dark spots as they age. Adults will remain active until the first frost. Development from egg to adult takes eight to ten weeks.

This pest has the potential to become a serious problem in nurseries and landscapes. Both the adult and larval stages of the viburnum leaf beetles can be severe defoliators. Larvae and adults feed on the leaves, defoliating between the midrib and larger veins. Heavy infestations can defoliate shrubs, cause dieback, and eventually kill the plants. It is the only pest known to skeletonize viburnum leaves. In late summer and fall, females will begin laying eggs. They chew holes in the bark of twigs to deposit eggs and then cover them with excrement and fragments of chewed bark. A female can lay up to 500 eggs.

The most effective management strategy (for small plantings) is to prune out and destroy infested twigs. This is best accomplished after egg-laying in the fall and before hatch occurs in the spring.

The Viburnum Leaf Beetle has only been confirmed in Cook and DuPage counties in Illinois. If your viburnum plants are

showing signs of defoliation, please keep your eyes open for larvae now or Viburnum Leaf Beetle adults in the next few weeks. Residents are urged to report suspected infestations. If you see

this pest or have questions, please contact or Kelly Estes at the Illinois Natural History Survey - Cooperative Agricultural Pest Survey kcook8@illinois.edu. (*Kelly Estes*)