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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.

I find it interesting that the woolly aphids are flying at the same time as cottonwoods are producing their drifting, fluffy seeds in large numbers. Perhaps this behavior causes confusion to birds and other predators that might focus on these woolly aphids for food. Because woolly aphids are not strong fliers, they are probably easily captured by predators. However, several mouthfuls of cottonwood fluff might cause predators to look for other prey.

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*)

Emerald Ash Borer in St. Louis Area

The emerald ash borer (EAB) has been found in St. Charles County, marking the destructive insect's first known infesta-

tion in the St. Louis area. EAB was first found in Missouri in the southeastern portion of the state in 2008 south of Greenville at a campground on Lake Wappapello. Since then, EAB has been found in 11 Missouri counties, mostly in the Kansas City area.

The infestation in St. Charles County was discovered by an employee at an industrial park on Highway N, a few miles south of Interstate 64. He noticed a declining ash tree in the parking lot. He looked closer and found the distinctive D-shaped exit holes. He then called the urban forester from the Missouri Department of Conservation. The forester, along with entomologists from the Missouri Department of Agriculture, collected a good adult specimen. USDA personnel in Brighton, Michigan, confirmed it was EAB.

Additional information on EAB in Missouri can be found at <http://extension.missouri.edu/treepests>. The second edition of "Insecticide Options for Protecting Ash Trees from Emerald Ash Borer" published in June 2014 is located at http://www.emeraldashborer.info/files/multistate_EAB_Insecticide_Fact_Sheet.pdf. The University of Illinois recommendations for the management of EAB are located at <http://extension.cropsci.illinois.edu/ornamental/insects/>. (*Phil Nixon and University of Missouri Extension news release*)

Cicada Killer and European Hornet

We have been receiving reports of large wasps in recent weeks that some people have "identified" by using the Internet as Asian giant hornet. This is confounded by

several news stories, including some in Illinois, on supposed sightings of the Asian giant hornet. From what I can tell, there have been no confirmed sightings of Asian giant hornet in the US. There are no US photographs or collected specimens. Two samples sent to me earlier this year thought to be Asian giant hornets turned out to be European hornets. Other sightings have been determined to be cicada killers. Please send me specimens and/or photos of what is thought to be Asian giant hornets in Illinois.

Cicada killers are about 2 inches long and black to red, with yellow banded markings on the abdomen. The head and transparent wings are reddish brown. Cicada killer emergence is timed with dogday cicada emergence. These insects are considered to be beneficial because they exert a form of biological control on cicada populations. However, the excavating and burrowing in open dry ground for nest construction can be a nuisance for gardeners and many fear the adults in flight. Cicada killers are considered to be non-aggressive.

It is the manner in which the male conducts himself that makes him feared. When you invade his territory, a male may aggressively approach to investigate and rule out any competition. Despite his insect equivalent of chest pounding, males are unable to sting. The females are the ones capable of stinging but is rarely done because she lacks the instinct to guard their nest like the honey bee.

Once the female cicada killer has found and paralyzed a cicada, she will carry it back to her underground nest. The female places her prize in a nest cell, lays an egg on it, and seals up the cell. The larva hatches in a few days and begins to

feed upon the still living but paralyzed cicada before forming a cocoon to pupate during winter and early spring. Plant ground covers and grass to avoid bare spots, put down mulch and use irrigation to deter nesting. Individual females can be killed by placing carbaryl dust (Sevin Dust) near the nest opening. They will pick up the dry dust and be killed through grooming. When the females are gone, the males will go elsewhere.

European hornets are about one inch long with black and yellow banded abdomens. The black bands extend into V- to arrow-shaped markings down the upper side of the abdomen. They nest in tree trunks and other hollow areas. Although large and imposing, their main aggression consists of head butts, so they sometimes fly into people to get them to move. Like cicada killers, one typically has to step on one bare-footed or grab one bare-handed to get stung. Unlike other bees and wasps that are only out during the day, European hornets are attracted to lights at night, being commonly seen flying into porch light bulbs and vehicle headlights. (*Phil Nixon and Kelly Alsup*)

Golden Canker of Pagoda Dogwood

The pagoda dogwood (*Cornus alternifolia*) is an attractive small tree to large shrub with horizontally tiered branches that provide a unique layered appearance. Unlike other dogwoods, the pagoda dogwood's leaves are arranged alternately along the stem; hence the name "alternifolia." While considered to be mostly problem free, the Pagoda dogwood is susceptible to a Cryptodiaporthe canker caused by the fungal pathogen, *Cryptodiaporthe corni*. This

canker is also known as the golden canker, due to the yellow-orange color of infected bark. The canker causes die-back of twigs that can progress from branch tips and into main branches and stems. Once in the main trunk, the tree quickly dies. As far as we know, *Cryptodiaporthe corni* only attacks pagoda dogwoods. More importantly, it seems to occur on trees that are stressed from heat and drought. It is likely that spores of the fungus are present on orange cankers in the spring, but the infection cycle is not well understood. Most of the die-back seems to occur during host dormancy, as wilted or dead leaves are rarely observed on affected branches.

To manage this disease, use sound horticultural practices to keep your pagoda dogwood healthy. Proper site selection is essential for this species. The pagoda dogwood does best in partial shade with moist, well-drained soil. Slightly acidic conditions are best. Some dogwoods can tolerate exposed, dry sites, but pagoda dogwoods in such locations will likely succumb quickly to *Cryptodiaporthe* canker. Cankered branches can be pruned 4-6 inches below affected tissues. Promote tree vitality by mulching and provide supplemental irrigation during extended dry weather. (*Travis Cleveland*)

Teasel

Now is the time of year when teasel can readily be spotted while traveling interstates and highways. Common teasel (*Dipsacus fullonum*) is an invasive monocarpic perennial - which means it can take a minimum of one year to flower and once it does, it dies. Teasel is native to Europe and is believed to have been

introduced into North America accidentally by catching a ride on other plant materials. It has spread rapidly over the last twenty to thirty years. It grows best in sunny open areas such as prairies, savannas, seeps, meadows, roadsides, dumps, or disturbed areas.

Before flowering, the plant grows as a rosette. The duration of the time teasel spends as a rosette depends on how long it takes for the plant to take in enough resources and nutrients to produce the flower. During the rosette stage the plant has ovoid shaped leaves and develops a large tap root. The tap root can grow to be over two feet long and one foot in diameter. Once the plant has collected enough nutrients, the plant will send up shoots to flower. Common teasel usually blooms in June through October. The flowers are small, purple, and clumped in dense oval shaped heads. The flowered stem may reach up to six or seven feet. The flower head is surrounded by long upward curving bracts that come up from under the flower head. In this mature stage the leaves are opposite and sessile and become more oblong and hairy while the stem becomes prickly.

Another species of teasel is the cut leaved teasel, which has white flowers and is much more aggressive. The best ways to manage teasel is to dig it up or cut it off. The more tap root you dig up, the more likely you are of killing off the plant. Another alternative is to cut off the flowering stalks after they bloom and dispose of their heads; the seeds will continue to develop even after the stalk has been cut off. It is important not to cut the stalk off before it flowers be-

cause it will just send up another flower stalk. Herbicides have also been shown to be effective.

If you spot teasel in your area, please consider reporting any new finds to www.eddmaps.org. (Evan Crokek, Kelly Estes)

Modified Growing Degree Days (Base 50°F, March 1 through July 10)

Station Location	Actual Total	Historical Average (11 year)	One-Week Projection	Two-Week Projection
Freeport	1499	1249	1659	1820
St. Charles	1299	1183	1451	1605
DeKalb	1296	1313	1451	1608
Monmouth	1448	1382	1610	1776
Peoria	1511	1459	1685	1862
Champaign	1604	1506	1782	1964
Springfield	1762	1617	1950	2139
Brownstown	1712	1698	1900	2094
Belleville	1779	1710	1967	2160
Rend Lake	1900	1835	2065	2295
Carbondale	1851	1731	2038	2230
Dixon Springs	1862	1809	2051	2246

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)