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INSECTS

Scale Crawlers

Pine needle scale crawlers are being seen in northern and central Illinois the week ending May 12. Euonymus scale crawlers are present in northern Illinois on the same date. As of May 12, crawlers of the brown race of oystershell scale were not yet present in central Illinois, but we expect them to appear soon.

One method of scouting for scale crawlers is to wrap a piece of black electrician's tape around a branch with the sticky side out. Crawlers will get stuck on the tape as they try to crawl across it. Remember that pine needle scale crawlers are dark red, euonymous scale crawlers are yellow, and oystershell crawlers are gray. All of these are colors that will be easily seen on the black tape. (*Phil Nixon, Bill Israel, Ted Gill, and The Morton Arboretum*)

Lilac/Ash Borer

Lilac borer, also known as ash borer, moths are flying throughout the state. Moths have been seen in northern Illinois, and empty pupal cases have been seen sticking out of borer holes in ash in central Illinois. One useful method to scout for this borer is to check infested trees once or twice a week at this time of year for protruding pupal cases.

Lilac/ash borer larvae tunnel out to and partially through the bark before pupating. The moth that emerges from the pupa is unable to chew so it just pushes out the thin layer of bark remaining. As the moth emerges, the brown shell of the pupa is usually left behind and protrudes from the hole. Sometimes this barely shows but commonly it sticks out about 1/2 inch.

Male moths emerge first and then females several days later. Eggs laid by the females will take several days to hatch. If a pheromone trap is used, we suggest treatment 2 weeks after peak moth catch in the pheromone trap. Because the pheromone trap catches only males and males emerge before females, we assume that females emerge when males are most numerous. Allowing time for mating, egg laying, and

egg hatch, we thus suggest treatment about 2 weeks later. An estimation of treatment time based on first moth catch or observation of the first pupal cases sticking out of trees would be 3 weeks after the first moth or pupal case observation.

Putting it all together, insecticide applications should be applied now in southern Illinois and near the end of the month in central and northern Illinois. (*Phil Nixon, Bill Israel, and The Morton Arboretum*)

Honeylocust Plant Bug

Honeylocust plant bug nymphs are feeding on newly emerging honeylocust leaves. They are very small right now. The easiest way to find the very young bugs is to shake a branch over a white piece of paper. When you see a tiny green insect crawling on the paper, look at it through your hand lens. These young nymphs are green with obvious antennae. Older nymphs are spindle shaped with a yellow spot in the middle of the back. The long legs on the older nymphs make them very fast moving.

In southern Illinois, the adults should be emerging and will appear in the rest of the state by early June. They are 1/8 inch long, green, and have a flat back. They are very active in that they run and fly readily. With older nymphs and adults, scouting is easily done by lightly disturbing the foliage and looking for the insects running up and down the main stem (rachis) of the compound leaf. The adults mate; lay eggs into young, green stems of the honeylocust; and die by the end of June. There is no second generation as these eggs do not hatch until next spring.

The insect's feeding causes severe leaf distortion, chlorosis, and yellow-brown leaf spots. A heavy plant bug infestation may cause premature leaf drop or failure to leaf out. Defoliated and partially defoliated trees will releaf in June. Trees with less damage will retain their damaged leaves throughout the summer, reducing the aesthetic appearance of the tree.

Yellow-leaved strains of honeylocust are much more susceptible than green-leaved varieties such as 'Sunset' and 'Shademaster' although there do not appear to be any varieties that will not show obvious damage in some years in some locations. Trees planted in protected areas near buildings tend to be

more heavily damaged than those in parks and other more exposed locations. Wild honeylocusts that are covered with long spines and produce lots of seed pods are also attacked by this insect but rarely show any damage that is obvious from more than a few feet away.

Control the nymphs with an application of acephate (Orthene), bifenthrin (Talstar), cyfluthrin (Tempo), or summer oil. Trunk injection with imidicloprid (Merit, Pointer, Imicide) should also be effective and useful, particularly for trees that do not require annual treatment. (*Phil Nixon and Donna Danielson of The Morton Arboretum*)

PLANT DISEASES

Bacterial Blast or Fire Blight?

Apples, crabapples, and pears may frequently host either of the diseases bacterial blast or fire blight. Most landscapers are very familiar with fire blight, a bacterial disease caused by *Erwinia stewartii*. The symptoms include sudden, rapid death of stem tips resulting in “shepherd’s crooks” (bending over of stem tips), twig and leaf blight, and blossom blight. In wet conditions, droplets of bacterial ooze appear on the stems. The leaves, bark, and wood are discolored from the point of infection to the edge of the blighted tissues with no green tissue intervening. Commonly, we see bacterial blight in warm, wet weather.

Bacterial blast involves the bacterium *Pseudomonas syringae* but is caused by the presence of this bacterium only in freezing or near-freezing conditions. Blossom infection is most common, but green stems and leaves may be affected as well. Tissues turn brown or black as with fire blight, but symptoms may be spotty with green, unaffected tissues between affected tissues. There may be discolored sapwood, but this is often in streaks. On apple, crabapple, and pear, the cankered areas are often covered with a papery, flaky layer of bark. Wood underneath this layer is discolored. *Pseudomonas* is often present on plant material without causing noticeable injury under normal conditions. It is, however, known as an ice-nucleating organism. This means that it will cause freezing of water in plant tissues at or near freezing temperatures. The resulting injury is more severe than the injury from freezing alone. The Callery pears may host bacterial blast but are resistant to fire blight.

Earlier in the season, we saw several examples of bacterial blast on crabapple and pear. Although a frost is still possible, that is not likely, and we are hoping

that we are finished with bacterial blast this year. Fire blight may be appearing now in some areas of the state. Watch for symptoms described above with droplets of cream- to bronze-colored bacterial ooze on the stems. For more on fire blight, consult *Report on Plant Disease (RPD)* No. 801, available on the Web at <http://www.ag.uiuc.edu/~vista/horticul.htm>. (*Nancy Pataky*)

Slime Molds Already?

Generally, slime molds are not prevalent in the Midwest until midsummer when temperatures and humidity are high. Reports of slime molds invading gardens have begun to occur in Illinois and it is May! We can attribute this phenomenon to odd weather.

Although these organisms cause much concern to the homeowner, slime molds do not take nutrients from the plant material. They feed on decaying organic matter, fungi, and bacteria in the soil and the turfgrass thatch layer. We often see them on bark mulches or on wood chips in play areas. During warm, moist weather, the slimy, amoeba-like stage appears on low-lying objects and may be watery-white, gray, cream to light yellow, violet, blue, green, or purple-brown greasy masses as large as 1 to 2 feet in diameter. This stage soon develops into colorful crusty fruiting bodies filled with masses of dusty spores. Slime molds are primitive organisms that flow (too slowly to watch) over low-lying objects such as mulches, sidewalks, driveways, or over vegetation such as turfgrasses, strawberries, flowers, ground covers, weeds, and the bases of woody plants.

Most gardeners want to know what to put on these molds to kill them. Chemicals do not provide control. For abundant molds, remove the spore masses in a plastic bag, and break up the remaining masses by vigorous raking, brushing, or hosing down with a stream of water. Mowing the lawn usually removes the spore masses in turfgrasses. For more information, read *RPD* No. 401, which discusses slime molds in turf. It is also available on the Vista Web site listed previously. (*Nancy Pataky*)

Witches’ Brooms Visible Now

Witches’ brooms are proliferations of shoots growing from one point and giving the appearance of a broom. We see them at the ends of stems on shrubs and trees. Witches’ brooms are easily visible now before foliage is fully expanded. The cause varies with the host. Cherry and blackberry witches’ brooms are caused by fungi; some witches’ brooms are the result of phytoplasmas (mycoplasmas); and common hack-

berry brooms are thought to be caused by a powdery mildew fungus in association with an eriophyid mite. There are even some brooms in conifers that occur as a genetic mutation. Such brooms are sought for propagation and use as dwarf types.

The most common witches' broom in Illinois is found on common hackberry trees. It is so common that many homeowners think witches' brooms are a characteristic of the species. Many of the twigs in a broom will die back in the winter. Buds on the surviving twigs are numerous, larger than normal, usually grayish, and with looser scales than normal buds. As a result, the tree has many clumps of thick growth throughout the canopy. The brooms may be unpleasant in appearance but will not kill a hackberry tree. Branches with brooms will become less vigorous with time, but the overall effect on the tree is minimal. The broomed areas may be more susceptible to wind, ice, and snow breakage.

As far as we know, there are no practical control measures for witches' brooms on hackberry. Because the pathogen does not progress down the stem, pruning is an option on small-specimen trees, but that would be a rare event because pruning would further disfigure the tree. Other than improving tree vitality through watering and fertilizing, there is no recommended treatment for brooms on hackberry. Just accept it. If you need a tree without the brooms, do not plant a common hackberry. Sugarberry is less frequently affected, and both Chinese hackberry and Jesso hackberry are considered resistant. See *RPD* No. 662 for more information on this condition.

In most cases, nothing can be done to control witches' brooms, but there are a few exceptions. If brooms are occurring on a shrub host, consult reference books or your Extension office to find the cause of the brooms. Mites or insects may be causing the problem, and possibly curative treatments will be effective, as with honeysuckle brooms caused by an aphid. (*Nancy Pataky*)

Leaf Curls on Peach and Oak

Both peach leaf curl and oak leaf blister are with us again this year. These fungal diseases are caused by different species of *Taphrina*, a fungus that causes distorted, thickened leaves and early leaf drop. Leaves turn downward and inward and may become red or purple. The disease may cause yield loss in edible peach but is not seriously harmful to ornamental species. Still, repeated yearly infection may weaken a tree and predispose it to other problems.

Peach leaf curl occurs on peach, nectarine, and some ornamental *Prunus* species. Leaf curl or leaf blisters refers to a similar group of diseases on oak and occasionally on poplar. Several *Taphrina* species (fungi) cause all of these diseases. Leaf distortion and blister-like growths or puckering of the leaves is common to all. The leaves are often thickened and almost crisp.

The fungi survive over winter in buds and twigs, infecting leaves and flowers in the cool, moist weather of early spring, from bud swell to bud opening (ideally, temperatures are 50°F to 70°F). Evidently, such weather did exist at the time of infection.

For fruit growers, we recommend a single dormant-fungicide spray applied in the fall after leaf drop or in the early spring before budbreak. This is common practice for most commercial growers. Home fruit growers in Illinois who use a dormant fungicide and are careful to provide full coverage of buds do not have problems with leaf curl. Landscape managers should focus on promoting tree health through pruning, watering, and fertilization. Fungicides are not usually recommended for ornamental trees. In all cases, fungicides would be useless against this disease now. If you are having problems with curl and blisters, mark your calendar for a late-fall fungicide application so you don't forget again.

Again this year a few have called and asked why their fungicide sprays did not control this disease. A likely scenario is that the chemical did not afford complete coverage. Hand sprayers often put out a rather coarse spray, and even coverage is difficult to attain. It might be wise to put a spreader-sticker in with the spray and to spray until the tree glistens from the spray. The fungus overwinters in bud scales and cracks and crevices of the bark so thorough coverage is necessary.

For more on leaf curls and blisters, consult *RPD* No. 805, Peach Leaf Curl and Plum Pockets, or No. 663, Oak Leaf Blister. Both are available on the Vista Web site listed previously. (*Nancy Pataky*)

WEEDS

Chickweed a Dominant Weed This Spring

A mild winter during 1999–2000 and springlike conditions in February and March have probably led to the great abundance of common chickweed (*Stellaria media*) now being seen. Common chickweed is a cool-season annual (also known as a winter

annual) member of the Pink family (*Caryophyllaceae*) that reproduces by seeds and creeping stems. Normally, cool-season annuals germinate in the autumn, flower the following spring, and die soon after summer temperatures rise; common chickweed, however, may occasionally persist through summer in sites protected from heat and drought. Common chickweed occurs in cool, moist, shady, often compacted, fertile sites in spring and autumn.

Common chickweed often forms large, dense patches in mowed areas but grows more upright in unmowed settings. The hairy, creeping stems root at nodes and produce shallow, fibrous roots. Leaves are bright green, opposite, simple, broadly oval, and usually less than 1 inch long. Its small, spring-borne white flowers are approximately 1/2 inch in diameter, have five petals, and are star shaped.

To control common chickweed without chemicals, maintain turf density and health by employing proper turf culture and mechanically remove the weed from the site. For chemical control, apply postemergence herbicides (for example, products containing 2,4-D; MCPP; dicamba, clopyralid, or triclopyr) in midspring or mid- to late autumn during active growth; apply preemergence herbicides (for example, products containing benefin + trifluralin, dithiopyr,

pendimethalin, or prodiamine) before germination in late summer or early autumn. Because most common chickweed plants are currently senescing and will soon die, application of chemical weed controls is not recommended any longer this spring. (*Tom Voigt, Luke Cella, and Bruce Spangenberg*)

Home, Yard, and Garden Pest Newsletter is prepared by Extension specialists from the University of Illinois at Urbana-Champaign and the Illinois Natural History Survey. Information for this newsletter is gathered with the help of staff members, Extension field staff, and others. Karel Jacobs and Donna Danielson of The Morton Arboretum also provide information and articles.

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