



COOPERATIVE EXTENSION SERVICE

HOME, YARD & GARDEN PEST

College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana - Champaign
Illinois Natural History Survey, Champaign

NEWSLETTER

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INSECTS

Scouting Report

Asian longhorned beetle stories are numerous in the news (see “Beetlemania 98” coverage on the *Chicago Tribune* Web site at <http://chicagotribune.com/news/metro/chicago/article/0,,ART12234,00.html>). You’ve probably been asked to identify more longhorned and other beetles than you wish. In addition to the original Ravenswood infestation in Chicago, beetles have been found in Wheeling, Addison, and Summit—all in northeastern Illinois. The Wheeling situation appears to be only a stray adult beetle find and probably does not indicate infestation. The Addison and Summit locations have infested trees, but the areas of infestation appear smaller than the Ravenswood location.

White grubs have hatched throughout the state. Scout irrigated turf and locations in turf where grubs have previously been a problem: Cut through the turf and pull it back to count the grubs in the root zone. Ten or more grubs per square foot will cause damage. Three or more per square foot may attract raccoons and skunks if they are numerous in the area. Damage will be more likely if nonirrigated turf was brownish in late June through early July. If grubs are numerous, use quick-acting insecticides such as trichlorfon (Dylox), bendiocarb (Turcam, Intercept), and diazinon.

Banded whitefly becomes numerous in flower beds this time of year. These 1/16-inch, white, gnat-like insects have grayish bands across the wings. They feed and build up on the field weed velvetleaf. Banded whiteflies tend to migrate to other plants as their numbers become massive and the velvetleaf starts to decline with the coming end of the season. A white fog of these insects will fly up from infested plants that are disturbed. Whiteflies sit on leaf undersides and feed by sucking out the sap. Heavy numbers can cause leaf distortion and brownish areas. Although the white, flying adults will feed on many plant species, the transparent, oval, 1/16-inch nymphs are usually found in high numbers only on the under-

sides of the leaves of velvetleaf and flowering maple, a close relative of velvetleaf. Feeding by even large numbers of the adults is unlikely to cause serious damage. Sprays of insecticidal soap or summer spray oil will provide control, if needed.

Fall webworm, yellow-necked caterpillars, and other caterpillars being found on trees and shrubs. Although these caterpillars may strip the leaves off fairly large branches, the branches will leaf next year. Damage of this type occurring late in the growing season does not seriously affect plant health. Various insecticides are effective, if needed. (*Phil Nixon*)

Wasps and Bees in the Landscape

Several types of wasps and bees are frequently encountered nesting in turf areas, trees, and shrubs. All but the honeybee nest for only one year, starting new nests each spring. Professional landscapers must frequently control these insects in order to perform plant maintenance at a site. Bees and wasps will likely attack if you are within three feet of their nest opening. Take precautions when working around stinging insects. A protective bee suit is always a good idea—or at least wear a bee veil to keep attacking insects away from your face. Close collars tightly and fasten pant and shirt cuffs with rubber bands to keep the insects from getting underneath clothing.

Wasps and bees are day-active insects, so use nest control measures in the evening. This makes it less likely that returning foraging individuals will attack from behind while you are attacking the nest. Disturbed wasps and bees will fly toward a light, so work around nests when there is still enough light to see without a flashlight. If you must use a flashlight, cover the lens with red plastic or cellophane. Wasps and bees can’t see red.

Underground nests are best controlled by flooding the nest with diazinon, mixed as directed. For quick application, pouring the insecticide out of a bucket may be effective. Immediately after the application, throw a shovelful of soil down the nest opening or stuff a rag into the opening and soak it with the

insecticide. This makes it more likely that wasps and bees boiling out of the hole are slowed down enough to be killed by the insecticide. Needless to say, don't hang around. Get out of the area and return in the morning to check on the effectiveness of control. Solitary nesting wasps such as cicada killers can be controlled by spraying the ground in the nesting area with diazinon during the day or evening.

Entrances above ground can be lightly dusted with carbaryl (Sevin) dust. The insecticide should not clog the hole that the insects enter. Instead, cover surrounding surfaces so that insects walking into the holes get the dust on their feet and bodies. They will groom themselves and feed each other in the nest, which will kill off the nest in about five days. If honeybees are treated, close off the hole as soon as the nest is dead to prevent bees from other colonies from entering to steal the unguarded honey. Such honey can cause the death of beekeepers' colonies in the area. (*Phil Nixon*)

PLANT DISEASE

Canker Diseases

We've mentioned cankers in various articles and discussed *Cytospora* canker of spruce in issue no. 9 of this newsletter. Cankers are dead areas of the vascular tissue and surrounding wood of a tree or shrub, or even field crops. The term "canker" is a symptom, like "wilt" or "leaf spot." Cankers may be caused by injuries (such as from hail or mowers), environmental stress (cold, heat, scald, etc.), chemicals, or pathogens. We see cankers on a wide range of trees and shrubs. Typically they occur on trunks, older branches, and injured areas on smaller twigs.

Fungi are usually the cause of cankers on stressed plants, but occasionally we find a bacterial canker. The fungal cankers contain fruiting bodies of the fungus, a very important diagnostic characteristic. The fruiting bodies contain the spores of the fungus. The size, shape, and color of these fruiting bodies, as well as the spore characteristics, allow us to identify the particular fungus. The fruiting bodies are pinhead-sized black or colored specks embedded in the bark. Often these fruiting bodies will appear as small bumps all over the cankered area. In wet weather, they exude spore masses or tendrils, often brightly colored (bright red-orange on *Nectria* canker).

Most canker pathogens enter the host through an injury caused by sunscald, insect feeding, pruning, weather extremes, chemical sources, and the like.

Weakened tissue from poor growing conditions, transplant shock, water or temperature extremes, nutritional imbalance, or extensive defoliation also provides entry points for the pathogens.

The youngest leaves are usually the first to show decline. Leaves wilt, turn yellow, and finally brown as their water supply is cut off. Some young twigs may curl downward. The bark may be discolored or blackened depending on the canker and host involved. If a canker girdles the stem, the twig will die from that point outward. If the stem is not girdled, it may show a one-sided death, or some leaves will be affected while others are green. Cankers usually take months (or years) to enlarge enough to girdle twigs, branches, and trunks. They may appear swollen, sunken, cracked, or discolored, and they may bleed sap or moisture.

If your plant has cankers, try to determine why they are present. If you can determine the cause of the cankers or stress, then you can try to alleviate those conditions. Next, determine whether or not the cankers need to be removed. If they are on the trunk, you may either leave the area alone or remove as much of the decayed wood as possible so that the tree can more readily form callous tissue over the injured area. Prune out stem cankers if they are unsightly or when it is obvious that they will soon girdle the stem. Some cankers, such as anthracnose on sycamore, cannot be removed without removing most branches. Leave these on the tree and take measures to promote tree health.

You can help avoid cankers on trees and shrubs by heeding the advice you've been hearing for years. Choose plants adaptable to local growing conditions. Plants growing out of their hardiness zone may do well some years, but they will be more prone to winter injury and more likely to have canker problems. Plant trees and shrubs at the proper depth, at the proper spacing for mature size, and in sites for which they are suited. For more information on cankers, consult *Report on Plant Diseases* No. 636. (*Nancy Pataky*)

Thyronectria Canker of Honey Locust

The Plant Clinic has received several calls and a few samples of honey locust problems that did not involve insects. The complaint has been yellowing and wilting of the foliage, premature leaf drop, and stem dieback. (In many of the cases we see at the clinic, we are not able to identify the cause of the problem initially. With a bit of follow-up, it often becomes clear that the sample provided was not adequate for diagnosis.)

These symptoms can be caused by the disease *Thyronectria* canker. Look closely for these cankers. The wood is often slightly sunken; the canker is cracked and has a yellow-orange color. The cankers are elongated and can occur on young or old wood. If in doubt as to the presence of a canker, do a bit of investigating, trying not to do too much tissue damage. Use a knife to peel back some of the bark in the suspect area. The sapwood beneath the canker will be discolored reddish brown. Healthy wood should be white or tan or slightly green.

This canker disease is fairly common on stressed honey locust, although the canker can be easily overlooked. The disease has been linked to drought stress, so you'd think that we would not see this disease in 1998. However, some areas of the state were very dry early in the season and have seen the disease. Pest scouts at The Morton Arboretum reported this disease on some of their locust trees this summer.

As with most canker diseases, there is no rescue treatment that can be sprayed on the tree. Prune out dead wood in dry weather, water the trees when two weeks of drought occur, and avoid physical damage to the trees. (*Nancy Pataky*)

Gummy Stem Blight of Cucurbits

This disease occurs on all cucurbits, including cucumber, muskmelon, and watermelon. On squash and pumpkin the disease is called black rot, but the pathogen is the same.

Plants infected with the gummy stem blight fungus die quickly if infected in the seedling stage. On older plants, as we would see this time of year, all above-ground parts can be affected. Infected plants resemble water-stressed or insect-damaged plants. Leaf symptoms appear as tan, circular-to-irregular lesions and often begin at the leaf margin. Lesions can expand toward the center of the leaf, causing large areas of the leaf to become blighted. Small, black fruiting bodies, pycnidia and perithecia, usually develop on the necrotic tissue. Infection of the stem causes cankers or lesions that are initially oily green but later turn tan. These lesions may exude sap, which then dries to form drops of resin-colored gum—thus the name gummy stem blight. Lesions can expand to girdle the stem, causing wilt and dieback of entire vines or plants. The lesions are key in diagnosing the disease.

The fruit symptoms usually start as small, water-soaked, circular spots. With age, these spots usually

darken, and gummy exudate and fruiting bodies may develop in the spots. If you look at this tissue too long after infection, it is more difficult to see because bacterial soft rot usually follows. The fungal pathogen overwinters in infected crop debris and can also be carried on infected seed.

Expect to see plenty of this disease, if you haven't already. The disease is favored by rainy weather and moderate temperatures. Pruning, picking, and insect activity can provide infection sites, especially on older stems and leaves.

Control measures include two- or three-year crop-rotation schedules, planting only disease-free seed, and using good sanitation practices (especially removal of infected plant debris). Protecting plants with fungicides may be necessary, especially when plants are young. Consider spraying next year if gummy stem blight is a problem this year. Weekly sprays are recommended, beginning when vines start to run. Consult pest-control handbooks for specific chemicals for your cropping practice. (*Nancy Pataky*)

Brown Rot of Stone Fruits

This fungal disease causes an easily distinguishable fluffy brown rot of the fruit of peach, nectarine, plum, prune, sweet and sour cherry, apricot, almond, Japanese quince, and the ornamental stone fruits. The disease is most severe in areas with frequent spring and summer rains, so conditions have favored the development of the fungal pathogen this year.

Brown rot is caused by *Monilinia fruticola* or *M. laxa*. These fungi may infect blossoms, fruits, twigs, and small branches. In warm, damp conditions, the fruit quickly turns light brown, followed by development of tan-to-gray spore tufts that give a fuzzy appearance. The rotted fruit eventually shrinks and blackens, taking on a mummified look. These mummies may stay attached to the tree, serving as an overwintering site for the fungus.

Brown rot is not known to cause leaf infection. Besides fruit rot, however, it may infect flowers, resulting in wilting and the production of the same spore tufts seen on the fruit. If the fungus invades stems, cankers result. Often the cankers ooze gum or sap. Injuries and insect activity may also cause gum or sap production on many stone fruit trees.

The most significant disease control measure is reduction of inoculum. Remove mummified fruit and prune out infected twigs or cankers. The fungus will continue to develop on unpicked fruit throughout the season, so remove affected fruit as it appears. Also

remove all fallen ripe fruit during the season—don't wait until autumn. Insect control will also help manage this disease.

Commercial fruit growers generally use fungicides during bloom and again three weeks before harvest to help control brown rot. For next year's reference, the bloom sprays should be applied when blossoms first appear and again four or five days later at full bloom. Some control can be attained yet this year by spraying two to three weeks before harvest and repeating at seven- to ten-day intervals. Many fungicides will work, but captan is probably the easiest to obtain and the least expensive for homeowners. Read the label carefully to honor preharvest intervals (number of days before harvest that you can spray a particular chemical). Brown rot is discussed in detail in *Report on Plant Diseases* No. 804. (Nancy Pataky)

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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