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## **Fall Webworm**

Fall webworm is common throughout the state. It lives as a group of caterpillars that spin a communal silk web. This silk nest typically encloses the end of the branch and associated leaves. The caterpillars remain in the webbing, feeding on these enclosed leaves. When the leaves inside the web are eaten, the silk webbing is expanded to include more leaves. Webs of mature caterpillars are typically 2 to 3 feet long. Multiple colonies frequently occur on a single tree, so many branches can be involved. Occasionally, entirely webbed trees are found.

The silk webbing shelters the caterpillars from rain and protects them from predators and parasites. It is common to see parasitic wasps trying to get to the caterpillars, only to be prevented from doing so by the silk webbing. Similarly, insectivorous birds are usually unable to pluck many caterpillars out of the webbing.

The caterpillars are yellowish and hairy. There are two races of fall webworm. The redheaded race has a red head and a yellowish body. The blackheaded race has a black head and a yellowish body with many black spots and a wide black stripe running down the back.

This insect has an extremely large host range, being found on almost any

deciduous tree and some shrubs. It is most commonly found in Illinois landscapes on crabapple, walnut, hickory, pecan, redbud, sweet gum, maple, and oak. There does not appear to be any separation of hosts based on the races of fall webworm.

In the southern half of Illinois, fall webworm has two generations per year. The first generation typically occurs in June, with the second generation in August and September. In the northern half of the state, only the August and September generation occurs.

Only the spring generation of these caterpillars is considered to be important to the health of the tree. The generation that occurs in August and September eats leaves that have already produced most of the energy that they will for the tree. As a result, the loss of those leaves is not a major problem to the plant. However, if the tree responds to the loss of these leaves by breaking buds and growing new leaves, then there is a health impact. Usually, this doesn't happen.

Clientele find the webs to be unsightly; and as the season progresses, they become only more so. Not only are the webs made larger, but they tend to become littered with the cast skins and fecal pellets from the larvae. For these reasons, control is usually important in landscapes for aesthetic reasons.

Because the caterpillars are in the webbing at all times, pruning off the branch with its webbing and disposing of it is very effective. Another method is to grab onto the webbing and pull it off the branch, bringing almost all of the caterpillars along with it. This allows the branch to remain on the tree, to releaf the following spring. A popular homeowner method is to set fire to the webbing, which does an excellent job of killing and toasting the caterpillars. However, the fire damages the bark of the involved branch and those nearby, which may get cankers or have other resulting problems.

Many insecticides are effective in controlling fall webworm. *Bacillus thuringiensis kurstaki* (Dipel, Thuricide), carbaryl (Sevin), pyrethroids, and other labeled insecticides are effective. However, the webbing is waterproof, making it spray resistant. Enough spray pressure is needed to break into the web and get the insecticide onto the leaves within the nest. Nest webs are typically expanded only every week or so, so insecticide deposited on leaves outside the webs is likely to break down before the caterpillars expand the webbing over treated leaves.

Finally, fall webworm is a native insect that is attacked by several natural enemies. As is typical of native insects, it is very numerous and obvious for about 3 years, followed by several years, usually 5 to 7, where it is low in numbers. Doing nothing to control these insects will not result in overwhelming attack and damage. Their numbers will drop naturally although they are likely to be numerous for the next couple of years before their numbers drop. Control

this year is likely to have little effect on large the infestation is next year as this insect feeds on many forest trees and the adult moths are strong fliers. (*Phil Nixon*)

### **Twig Pruner and Twig Girdler**

Large numbers of branches from one to three or more feet long dropping from oaks at this time of year are likely to be caused by twig pruner or twig girdler. We have had a few calls about these insects in the last couple of weeks. In Illinois, these insects seem to prefer oaks, but will also attack elm, linden, hackberry, redbud, hickory, pecan, persimmon, honey locust, and flowering fruit trees. Twig girdler also attacks poplar and dogwood. Twig pruner also attacks chestnut, maple, sweet gum, sassafras, and wisteria.

Both of these insects are roundheaded borers; the adults are called longhorned beetles. Generally, roundheaded borers require a high moisture level in the wood, but cannot handle the high sap flows and pressures found in healthy trees. For that reason, they tend to attack dying or recently dead trees or parts of trees. An exception to this is the Asian longhorned beetle which attacks and healthy trees. We appear to have eradicated Asian longhorned beetle in Illinois, but it is currently a problem in the Cincinnati, Ohio and New England areas of the U.S. Twig pruner and twig girdler are interesting in that they create dying branches for the larvae to live in.

The twig girdler, *Oncideres cingulata*, adult female lays an egg near the end of a branch in the late summer to early fall. After laying the egg, the adult crawls up

the branch to a location where it chews a groove all of the way around the branch, cutting through the bark and much of the sapwood. This effectively girdles the branch, causing it to die. This eliminates most of the sap flow, allowing the hatching larva to feed in the branches without drowning in the sap or being crushed by the internal wood pressures caused by healthy sap flow. Because the girdling by the adult female has weakened the branch, it commonly snaps off at that location and falls to the ground. The end of the branch will have the external smooth cut made by the female beetle, but the pith and inner wood portion will be jagged. The twig pruner larva continues its development in the fallen twig through much of the following summer.

The twig pruner; *Elaphidionoides villosus*, adult female beetle lays an egg at a leaf axil towards the end of a branch in the spring and then flies off. The hatching larva tunnels through the center of the branch, where the sap flow is less, towards the base of the branch. Late in the summer, the larva tunnels outward through the sapwood, stopping at the bark. This internally weakened branch snaps off in the wind and falls to the ground. The end of the branch will show a smooth cut, but the bark breakage will be jagged. The twig pruner larva continues its development in the fallen twig, pupating in late fall, and spending the winter as a pupa in the twig. The adult beetle emerges in the spring.

Squirrels will also clip off large numbers of twigs. The end of these twigs will be cut smooth at a slight angle, looking like they were cut with hand pruners.

Neither the center nor the bark will have jagged edges.

Control of twig pruner and twig girdler is accomplished primarily by raking up and destroying the fallen twigs. This kills the developing larvae of both species. Insecticide applications are not practical as damage is sporadic in both location and time. The year in which these insects become numerous is not predictable and neither are the individual oaks or other trees that are attacked. (*Phil Nixon*)

### **Dealing with Drought**

No drought is not a disease, but it can be categorized as an abiotic disease or condition. It seems as of late, I am having to write a lot of Plant Clinic sample reports that read, “suspect drought stress” or “water in times of drought”. This is not surprising, as most of Illinois and other areas of the US are experiencing either abnormal to severe drought conditions. Visit the [Current US Drought Monitor](#) for more information.

Without any rain in sight for several weeks now, even my own hydrangeas were wilting in the scorching heat and dry conditions. There are numerous symptoms that a plant can exhibit when suffering from drought stress. But, remember as always, other factors can mimic signs of drought, such as compacted soil, mechanical root injury, cold injury, improper pesticide use, and even over-watering. A great website that describes drought symptoms can be found at [Recognizing Drought Injury Symptoms on Plants, By Mary Small, Colorado State University Cooperative Extension Agent, Urban IPM](#) .

Other great resources explaining drought symptoms and care can be found at: [Plant Stress-U of I Extension Dealing with Drought](#) and [Leaf Scorch-U of I Extension Dealing with Drought](#).

I have received several emails within the last several weeks describing some these drought symptoms such as, “several maples in the neighborhood have leaves that have turned brown, but remain attached to the branch”, “I have an ash that has been dropping leaves for some time”, and “several honey locust trees in the Springfield area have oozing cankers”. As always at the Plant Clinic, we would like to rule out disease as a culprit for any of the above symptoms, but often times, drought stress is the diagnosis or the underlying issue.

If possible, you may choose to water a tree, perennial, or even the entire yard, depending on your priorities and situation. We recommend that you try to relieve all plant stress as this can predispose them to disease or insect infestation. It is becoming late in the season, but plants are suffering. You may choose to water your long term investments or trees and shrubs that can't be easily replaced, rather than annual flowers or veggies. Then, we can't forget, our lawns that can dry up due to lack of water. Cool-season lawns will go dormant when conditions become hot and dry. When dormant, the need for water is not as great.

Remember, some trees or plants are more prone to drought stress than others. When deciding what to water, you may want to tend to those that have been newly planted first. Herbaceous perennials in exposed sites can be more vulnerable to drought as well as other environmental stresses. Trees with shallow root systems such as maple, linden, alder, hornbeam, dogwood, willows, mountain ash, spruce, fir, arborvitae, yew, boxwood, and euonymus can be at risk when there is insufficient moisture and could also benefit from mulching. Lastly I would like to note, we often recommend fertilizing trees in the fall, but in some cases, injury could result if trees are suffering from drought. Salts in fertilizers can burn roots if they have not received sufficient water.

Now, for the watering questions: Where do I water? How much water? Well, I will leave this to the U of I Extension Horticulture experts. Here are several great factsheets explaining the proper watering techniques:

[Proper Sprinkler Use-U of I Extension Dealing with Drought](#)

[Proper Lawn Care-U of I Extension Dealing with Drought](#)

[Watering Trees and Shrubs-U of I Extension Dealing with Drought](#)  
(Stephanie Porter)