

Number 16 - September 26, 2018

Spruce Spider Mite

Now that temperatures are beginning to fall in Illinois, conditions are becoming favorable for spruce spider mite (*Oligonychus ununguis*). Spruce spider mites are typically active in spring and fall when temperatures are cool and become inactive during the hot summer months. Active mites will feed on various needled evergreens including spruces, pines and junipers. In the fall, mites will feed on first-year needles and needles from previous years.

Spruce spider mites are too small to be seen clearly without a hand magnifying lens but their feeding damage can be more easily identified. Mites suck fluids from small clusters of plant cells causing discoloration that will eventually give needles a brown speckled appearance called stippling. From a distance, this discoloration can make the needles appear bronze. Spruce spider mites can also be identified by the presence of fine silk among the needles.

When scouting for spruce spider mites, it is important to confirm that mites are present in injured areas and determine what type of mites are present. One way to do this is the paper test. For this test, hold a sheet of blank paper below an affected branch and firmly strike the branch. The impact should cause the mites to fall onto the paper where they can be more easily inspected. Using a

hand lens, identify whether the mites on the paper are green or red. If a hand lens is not available, it may be necessary to smash the mites to discern the color. Green coloration indicates that the mites are herbivores while red indicates that the mites are predatory, feeding on other mites. If the population is composed of herbivorous mites and you are experiencing aesthetic damage, you can treat for the mites. If red mites are present, they may be feeding on the spruce spider mites. Consider the relative abundance of red and green mites. Over time, the predatory mites may control the spruce spider mites well enough that no chemical treatments are needed.

When controlling for spruce spider mite, it is best to choose a miticide. Some chemical miticides include acequinocyl (Shuttle), bifenthrin (Onyx, Talstar), fenazaquin (Magus) or spiromesifen (Forbid). Mites can also be controlled with insecticidal soap or summer oil. It is important to remember that miticides will be effective in killing both herbivorous and predatory mites so they should not be used if you would prefer to encourage an existing population of predatory mites. (Sarah Hughson)

Minute Pirate Bug

Minute pirate bugs or insidious flower bugs tend to be more prevalent in our backyards when the farmers start to

harvest in late summer to early fall. Some people call these minute pirate bugs, no-see-ems, which is inaccurate. No-see-ems are tiny black gnats that feed on blood; these guys are true bugs. However, they definitely feel like they are feeding on blood. Many Illinoisans would put minute pirate bugs in the same category as mosquitoes and chiggers for their annoying habit to bite you. They probe your skin with a short beak to determine whether you are food. The pinch-like bite is surprisingly painful for such a small unnoticeable insect. While insignificant to some people, others may develop welts and red marks.

Despite their tendency to bite, they are beneficial insects. They are about a 1/8 inch long and black and white with a narrow head. They are ferocious when it comes to eating any insects smaller than them. They are beneficial as predators, feeding on small insects and the eggs of other insects. For example, these bugs are an important predator of corn earworm eggs in cornfields. Both immature stages (nymphs) and adults feed on a variety of small prey, including spider mites, psyllids, whitefly, insect eggs, aphids, thrips, and small caterpillars. Both adults and nymphs feed by sucking juices from their prey through a sharp needle-like beak. Immatures have orange teardrop shaped bodies and are wingless. They feed on plant juices, pollen, and nectar when prey is not available.

Control is not recommended because they are temporary and unpredictable pests and because they are considered beneficial insects in the garden. They are likely arbitrarily landing on you, so insect repellents that cover up scents like carbon dioxide and lactic acid will not be effective in keeping these guys from probing your

skin. Having released these in the greenhouse on purpose, as a biological control for spider mites and thrips, I have had to restrain myself when they bite. Their beneficial nature overcomes my urge to smash them, and I encourage them to start roaming the plants instead. The best thing you can do to protect yourself is cover your skin. (*Kelly Allsup*)

Biscogniauxia Canker and Dieback

Biscogniauxia (pronounced Bisk-o-nee-ox-e-a) canker and dieback is a disease that takes advantage of stressed and weakened host trees. Outbreaks of the disease occur following stress events. These events may include growing seasons with intense heat, prolonged drought, or any injury to a tree's root system. While the disease is capable of infecting a variety of tree species, oaks within the red oak group are particularly susceptible. Over the past several years, I have observed numerous pin oaks in central Illinois succumb to this disease.

Biscogniauxia canker is a fungal disease caused by the pathogen *Biscogniauxia atropunctata* (formerly *Hypoxyton atropunctatum*). The fungus enters the tree through wounds and natural openings in the bark. In healthy trees, the fungus survives as small colonies in the bark and sapwood but is kept in check by the tree's natural defenses. Hot, dry conditions cause water stress within the host trees, allowing fungal colonies begin rapid growth. The fungus then causes a decay of sapwood, inner bark tissues, further disrupting the flow of water and nutrients through a tree. The early symptoms of the disease are consistent with drought stress. Branches often have wilting, yellowing, or smaller

than normal leaves. Affected trees often have thin canopies with visible dieback. Large girdling cankers form as the disease progress down to the trunk, eventually killing the tree.

The best way to diagnose *Biscogniauxia* canker is to look for exposed stromata (compact masses of mycelium) that typically appear the year after a severe predisposing event. Cushion-like fungal stroma form under the bark and exert pressure between the wood and bark of the tree. The pressure eventually causes the bark to slough off the tree, revealing a tan to brown colored fungal stroma. Later, the stroma turns silver in color, and finally black.

Unfortunately, there are no control measures for trees with extensive cankers and dieback. No chemicals are registered for *Biscogniauxia* canker and dieback on oaks. Management centers on prevention and sanitation. Avoid wounding trees, especially their root systems. Maintain good cultural practices such as proper fertilization and watering during hot, dry weather. Prune out dead or declining limbs from trees suspected to be infected disease. This may help to control the spread of the fungus on a tree. Severely infected trees should be promptly removed. Infected wood should be destroyed immediately to keep the disease from spreading.
(Travis Cleveland)

Household Hazardous Material Collection Events Scheduled for Fall 2018

Fall can be an excellent time for cleaning up your chemical storage area. Now is the time to get rid of any old or unwanted pesticides while this growing season's use

is still fresh in your mind. The household hazardous material collection schedule has been released to the public. More information can be found below. Here are a few options you have for disposing of your old or unwanted pesticides:

1. Use them up. You can usually apply them to a labeled-use site regardless of whether or not pests are present. Be sure to read and follow all label directions. Sometimes pesticides are taken off the market, or certain uses are removed from the label. In those cases, existing stocks can typically still be used. Rarely does US-EPA order a stop-use on the product. However, it is illegal to apply old stocks of chlordane or 2,4,5-T. To learn about the registration status of your product in question, you can contact the manufacturer or the Illinois Department of Agriculture, (217)785-2427.
2. Give them away. Fellow neighboring gardeners may be interested in your castoffs. It's not recommended that you sell unwanted pesticides. To sell a pesticide legally, it must still be in the original packaging with the complete label. If the pesticide is restricted use, you must be licensed in order to sell it. If the product registration has been cancelled, selling is illegal.
3. Take them to a hazardous waste collection event. The Illinois Environmental Protection Agency (IEPA) has scheduled a few household hazardous waste (HHW) collection events to be held across Illinois this fall. See below for the schedule.

For a list of household hazardous waste materials that are acceptable or unacceptable at these collections, please visit

the Illinois EPA's Web site at <http://www.epa.illinois.gov/topics/waste-management/waste-disposal/household-hazardous-waste/acceptable-wastes/index>.

If in doubt, it may be best to first contact the Waste Reduction Unit of the IEPA at (217)785-8604.

There are special hazardous material collection events for other non-household types of pesticides:

- Agricultural pesticides are collected at various scheduled "Agricultural Pesticide Clean Sweep" events. Contact the Illinois Department of Agriculture, (217)785-2427, for more information.
- Structural pesticides (those used by professional applicators to control pests in and around structures) are collected at "Structural Pesticide Clean Sweep" sites. Contact the Illinois Department of Public Health, (217)782-4674, for more information.

9/29/18
Danville Area Community College
2000 E. Main Street
Danville, Illinois 61832
Sponsored by: Vermilion County Health Department

10/6/18
Fayette County Health Department
509 W. Edwards Street
Vandalia, Illinois 62471
Sponsored by: Fayette County Health Department

10/13/18
Park and Ride Parking Lot
Station Road (north of Mill Road)
Oswego, Illinois

Sponsored by: Fox Metro Water Reclamation District

10/27/18
Progress City USA
E. Mound Road
Decatur, Illinois 62521

Sponsored by: Macon County Environmental Management Department

One-day collections are open from 8 am to 3 pm on the above scheduled Saturdays. Please note these are open to all Illinois residents. In addition, the following long-term facilities are available for disposal of HHW. Please phone ahead to determine availability and open hours.

City of Chicago
Household Chemicals and Computer Recycling Facility
1150 N. North Branch on Goose Island
Tues: 7 am - noon
Thursday: 2 pm - 7 pm
First Saturday of each month: 8 am - 3 pm
For information: (312) 744-7672

Rockford:
Rock River Reclamation District
3333 Kishwaukee
Sat: 8 am - 4 pm
Sun: Noon - 4 pm
For information: (815) 987-5570

Naperville:
Household Hazardous Waste Facility
156 Fort Hill Dr.
For information: (630) 420-6095
<http://www.naperville.il.us/services/garbage-and-recycling/household-hazardous-waste-facility/>

Lake County:
The Solid Waste Agency of Lake County

(SWALCO) currently operates a long-term household chemical waste collection program. Information and a collection schedule can be found on the SWALCO Web site or by calling 847/336-9340.

For questions concerning the IEPA's one-day or long-term collections, please call the Waste Reduction Unit at (217) 524-3300. (*Michelle Wiesbrook*)