Home, Yard, and Garden Pest Newsletter

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In This Issue

Welcome

Welcome to the 2023 edition of the Home, Yard, and Garden Pest Newsletter. The goal of this newsletter is to keep professional landscapers, arborists, golf course superintendents, lawn care personnel, and garden center operators up-to-date on the commercial management of diseases, weeds, insects, and other pests. We will report on the pests we are seeing and anticipating throughout Illinois. To assist us in these efforts, we ask for your help in reporting pest situations as you see them throughout the year. Your assistance will help us to provide relevant and timely content for all of Illinois. Most of the newsletter's authors are only able to scout a small portion of east-central Illinois. Please send pest reports to Travis Cleveland at tclevela@illinois.edu.

Our primary authors are plant pathologists Travis Cleveland (tclevela@illinois.edu), Diane Plewa (dplewa@illinois.edu), weed scientist Michelle Wiesbrook (buesinge@illinois.edu), IPM specialist Maria Turner (mrestrep@illinois.edu), and entomologists Sarah Hughson (hughson2@illinois.edu) and Kelly Estes. We also plan to include content and observations from extension educators from around the state.

This year's newsletter will be published every two weeks throughout the growing season.

Travis Cleveland

Celandine Poppy, Stylophorum diphyllum, Travis Cleveland, University of Illniois

Spruce Spidermites

Spruce spider mite (Oligonychus ununguis) USDA Forest Service - Northeastern Area, USDA Forest Service, Bugwood.org

Spruce spidermite (*Oligonychus ununguis*) is a herbivorous mite that feeds on spruce, fir, juniper and other conifers. These mites suck plant fluids from conifer needles. Each time a mite pierces the plant, it leaves behind a small discolored spot. When many mites feed on the plant, the needles can quickly become covered in small yellow spots, described as "stippling." This can give the injured plant a bronze appearance at a distance. Fine silk may also be visible among the needles and twigs.

Spruce spidermites feed and cause injury in the spring and fall, when the weather is cooler. This can help you identify which spidermite species is causing the injury; if the injury occurs during the hottest part of the year, it is not caused by spruce spidermite.

Spruce spider mite (Oligonychus ununguis) Petr Kapitola, Central Institute for Supervising and Testing in Agriculture, Bugwood.org

When scouting for mites, it's important to identify whether you have predatory or herbivorous mites before applying a treatment. The easiest way to do this is to collect mites onto a sheet of paper and inspect them.

Hold a piece of white paper under a branch and hit the branch with a rake handle. This should knock the mites onto the paper, where they can be seen more easily. Red mites are predatory mites that feed on herbivorous mites. If you find many red mites, don't apply a treatment because it will kill the predators. Green mites are herbivorous mites, feeding on the plant. If you find many green mites and have significant injury, you can apply a treatment to control them. The treatment must be applied when mites are active and present on the tree.

When controlling mites, be sure that spidermites are indicated on the pesticide label, because products labeled for insects may not work on mites. Some treatment options include: acequinocyl (Shuttle), bifenthrin (Onyx, Talstar), fenazaquin (Magus), spiromesifen (Forbid), insecticidal soap and summer oil.

Sarah Hughson

Common Chickweed

Common chickweed that has gone to seed, Michelle Wiesbrook, University of Illinois.

Spring is finally upon us. While many of us would like some warmer temperatures, cool-season annual weeds such as common chickweed are greatly enjoying these cooler days. In many areas where a preemergent herbicide was not applied last fall for broadleaf weed control, quite a bit of chickweed can now easily be found. Its bright to light green color gives it away. In fact, I've seen some far enough along in development and the color is light green

to yellow. This is how this plant looks before dying. That's the good news for us about this weed. It won't be here much longer. If common chickweed is a problem weed for you, plan to prevent future infestations in the fall. Mulch works well to prevent germination in landscape beds. For lawns, control options are discussed below.

Common chickweed *(Stellaria media)* is a cool-season annual (also known as a winter annual) member of the Pink family *(Caryophyllaceae)* that reproduces by seeds. 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 stems will often form mats over surrounding low growing plants. The stems are softly hairy and can root at the nodes when lying prostrate. The roots are shallow and fibrous. 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. The 5 petals are deeply lobed and appear from a distance as 10 petals.

Common chickweed actively growing but in flower, Michelle Wiesbrook, University of Illinois.

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, triclopyr, carfentrazone, florasulam, or penoxsulam) in midspring or mid- to late autumn during active growth. Plants should be green. Remember, yellow ones are at the end of their life cycle. Apply preemergence herbicides (for example, products containing benefin + trifluralin, dithiopyr, isoxaben, pendimethalin, prodiamine, or pronamide) before germination in late summer or early autumn. These lists are provided for reference and are not all-inclusive. Please carefully read and follow all label directions. Hand removal can also be used as this plant pulls easily. It's important to remove it prior to seed development. Be sure to bag and remove any discarded weeds from the site to prevent further development before it dies.

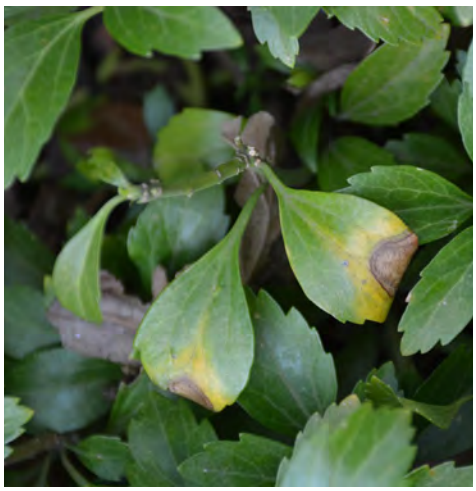
A closely related plant is mouseear chickweed (*Cerastium vulgatum*). This weed has a similar growth habit, however it is a perennial which commonly roots at the nodes. The leaves are densely hairy and typically quite oblong. It occurs less commonly in a general turfgrass or landscape setting.

Mouseear chickweed growing in a lawn, Michelle Wiesbrook, University of Illinois.

Adapted from past HYG articles by Tom Voigt, Bruce Spangenberg, Luke Cella, and Michelle Wiesbrook.

Volutella Blight of Pachysandra

Volutella leaf blight lesion with concentric rings and dark brown margin, Travis Cleveland, University of Illinois



Volutella leaf blight lesions on Japanese pachysandra, Travis Cleveland, University of Illinois

Stem canker and wilted leaves of Japanese pachysandra caused by Volutella Blight of Pachysandra, Travis Cleveland, University of Illinois

Japanese pachysandra (*Pachysandra terminalis*) is a mostly trouble-free species. However, it occasionally has problems with scale insects and fungal diseases, with Volutella blight is the most common.

Symptoms

Volutella blight symptoms begin as tan or brown leaf blotches that develop target-like concentric rings. The spots continue to enlarge and eventually kill the leaf. The fungus may progress through stems and stolons, causing cankers that girdle and kill stems. Tissues beyond the canker wilt and die. During warm, moist weather, pink to orange-brown spore pustules may be visible on the undersides of affected stems and leaves.

This disease is favored by a weakened or stressed host plant and is often seen on pachysandra damaged by winter injury. Other stresses, such as transplant shock, drought, excess moisture, shearing, scorch from excess sunlight, or scale infestations can also increase a host's susceptibility to the disease.

Disease Management

Disease management should begin by removing and destroying all severely infected plant parts, preferably during dry weather. The next step should focus on alleviating known stresses and controlling scales and other pests. Remove accumulated leaf debris that may hold moisture. Protect from excess sunlight or desiccating winter winds. Irrigate during extended periods of dry weather. Periodically thinning pachysandra beds will increase air circulation and allow plants to dry quickly.

Fungicides can be used to prevent new infections, especially when other options haven't succeeded. Plants should be sprayed when new growth starts in the spring and repeated according to label directions to protect newly emerging tissues. Additional applications may be necessary during wet weather. Products with the active ingredients chlorothalonil or mancozeb are labeled for homeowner use. Commercial applicators have access to products with chlorothalonil, thiophanate-methyl, mancozeb, and copper-based active ingredients.

Travis Cleveland

Botryosphaeria Canker of Dogwood

Neon burst Tartarian dogwood, Travis Cleveland, University of Illinois

My neon burst Tatarian dogwood has been through a lot since I planted it a few years ago. It has been grazed on a few times by the local deer population, hosted a dogwood sawfly convention in 2021, and most recently accommodated several Botryosphaeria *cankers.* Botryosphaeria *canker is a common disease of many landscape trees and shrubs. The cankers tend to be inconspicuous on many plant species. However, the cankers are evident and stand out against the young bright-colored bark of red-stemmed dogwood species.*

Symptoms

As with most cankers, the fungus invades through wounds, weak areas of the wood, and possibly through the lenticels. Dark, sunken lesions develop on the stems. The lesion may grow to encircle the stem, killing the cambium as it progresses. The girdled stem dies from the canker to the tip of the branch. The fungus's black, pinhead-sized fruiting bodies are often embedded in the face of the lesion.

Botryosphaeria canker on Tatarian dogwood, Travis Cleveland, University of Illniois

Disease Management

Remove dead wood during dry weather. Sanitize your pruning between cuts to avoid spreading the pathogen. Drought-stressed plants are prone to the disease. Add a layer of mulch to help conserve soil moisture and provide supplemental irrigation during periods of extended periods of dry weather. Unfortunately, fungicides do not help this situation.

Travis Cleveland

Spring Tips for Pollinator Protection

Pollinators can be some of the first spring insects we notice in the landscape. You may have seen honey bees and native bees foraging on grape hyacinth earlier this season or foraging at crab apple and cherry blossoms right now. You may even notice butterflies like, my favorite, the mourning cloak, as they emerge from their overwintering sites. This makes spring a great time to brush up on tips for pollinator protection.

While all the suggestions listed here may not be possible for every situation, this list is indented to provide options so applicators can choose pollinator conscious practices that suit their individual applications.

A closeup of a flying bee between grape hyacinths in jena (462073878),Marrow83, AdobeStock

Choosing a pesticide:

Choose a pesticide with lower bee toxicity

Some products, like neonicotinoid insecticides, are highly toxic to bees. While our target insects are killed by the application rates on the specific use section of the product label, some nontarget insects may be sensitive to smaller quantities of the material.

- Products that are more problematic to bees will have a Bee Advisory Box on the label. The Bee Advisory Box will give additional information about the use of the product regarding pollinator safety. For example, it may say the product cannot be applied when bees are present, can only be used after petal fall or it may give additional information about avoiding particle drift.
- To view a list of pesticides that are highly toxic, moderately toxic and relatively nontoxic to honey bees, visit Purdue University's publication, Protecting Honey Bees From Pesticides.

Avoid microencapsulated formulations

Microencapsulated pesticides are droplets of pesticide surrounded by plastic or starchy materials. This coating allows the pesticide to be applied safely and breakdown to release the pesticide after application. Unfortunately, the particles are similar in size to pollen grains, so bees may collect them and carry them back to the hive where they breakdown and harm the bees.

Choose a targeted application

It is a good idea to closely target your pest. This may be choosing a spot treatment (only treating the location where your target pest occurs) or a treatment that only acts on your target species and very close relatives. Avoid area-wide or broadcast applications whenever possible, this can prevent unintended contact between pollinators and insecticides just by reducing the area covered by the insecticides.

Conditions for application:

Apply when temperatures are below 55°F, when bees are not active

Honey bees begin to forage when the temperature is 55°F or greater. The minimum temperature honey bees require for flight is 54°F, if bees' flight muscles are cooler than that, they are unable to fly and forage.

Timing the application:

Apply treatments before dawn or after dusk, when bees are not active

Honey bees forage during the day after temperatures reach 55°F and return to their hives as the sun sets. Applying treatments when bees are not active is a good way to avoid honey bee exposure.

Avoid applying systemic treatments to plants prior to or during bloom.

Systemic pesticides are taken up and transported throughout the plant and persist for longer periods of time. If a systemic treatment is applied on or near a flowering plant, that treatment may later become present in the pollen. If a flowering plant must be treated with a systemic insecticide, it is best to do so after the plant is done flowering to avoid pollinator exposure.

Location of the application:

Try not to make spray applications close to blooming flowers.

This can help prevent particle drift onto the flowers and prevent pollinator exposure when they visit the flowers. Alternatively, granular pesticides can be applied to prevent particle drift onto flowers.

Keep in mind that clover and weeds in turfgrass are also visited by pollinators.

Often flowering weeds are used as early season food sources for pollinators coming out of dormancy. If an early season treatment with a contact insecticide is necessary, mowing the flowers off of clover or weeds prior to the application is an option to avoid pollinator contact with an insecticide.

Determine whether there are sensitive areas near your application site.

Check the IDNR Awareness Tool for Applicators, an interactive map that allows applicators to determine if there are sensitive areas near their application site. Sensitive areas may include preserves or areas that are habitat to threatened or endangered species, like the rusty patched bumble bee. Certain pesticides may be prohibited in those areas.

Notify beekeepers:

Notify beekeepers within 3 miles of the applications site 48 hours prior to applying a product toxic to bees.

Visit Illinois DriftWatch or FieldWatch to identify beekeepers near your application site and notify them that you plan to apply pesticides. This gives beekeepers the chance to cover hives, move hives or otherwise accommodate the bees so they can avoid bee exposure by preventing the bees from foraging during the application.

- While 3 miles may seem like a large distance, research has shown that the foraging range around beehives is about 2 miles and some individuals may travel up to 5 or 6 miles to find pollen and nectar.

Sarah Hughson

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