



Home, Yard, and Garden Pest Newsletter

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Last Issue for 2022

This is the last issue of the Home, Yard, and Garden Pest Newsletter for this year. We plan to publish the first issue of 2023 in mid-April. As always, your suggestions for improving this newsletter are welcome. Thanks for your interest and input this year.

Travis Cleveland

Spruce Spider Mite

As temperatures begin to fall, conditions may become 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.



Petr Kapitola, Central Institute for Supervising and Testing in Agriculture, Bugwood.org

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

Fall Control Options for Viburnum Leaf Beetle

Viburnum leaf beetle (*Pyrrhalta viburni*) larvae feed on members of the Viburnum genus causing significant defoliation. While the larvae are active in May and June, there are some steps that can be taken in the fall to reduce or prevent injury the following year.



Viburnum leaf beetle egg cavity caps, Bruce Watt, University of Maine, Bugwood.org

Fall Mechanical Control

From July until frost, adult females create a cavity along viburnum twigs where they deposit eggs. They cap the egg cavities with a combination of plant material, saliva and frass. As temperatures cool and the beetles stop laying eggs, the eggs can be removed to reduce egg hatch in the spring.

Eggs can be removed from viburnum by pruning out infested twigs. The egg cavity caps (shown below) will be easier to find when the leaves have dropped in the fall. After the twigs have been removed, they should be burned, buried or discarded in a location away from the viburnum plants. This is one of the most effective ways to reduce viburnum leaf beetle populations.

Fall Cultural Control

Planting varieties of viburnum that are less susceptible to viburnum leaf beetle attack is a good way to avoid injury from this insect all together. These varieties include: David viburnum (*Viburnum davidii*), dawn viburnum (*V. bodnantense*), doublefile viburnum (*V. plicatum* or *V. plicatum* var. *tomentosum*), Judd viburnum (*V. x juddii*), Koreanspice viburnum (*V. carlesii*), leatherleaf viburnum (*V. rhytidophyllum*), Siebold viburnum (*V. sieboldii*), or tea viburnum (*V. setigerum*).

Sarah Hughson

Instead of Raking Leaves, Try Mulching Them into the Turf

There are many things to enjoy about fall, but raking leaves is probably not high on your list. It's a labor-intensive process of collecting the leaves into piles, bagging them, and then hauling them to the curb or off-site. The process repeats until the last leaf is down. Mulching the leaves back into the lawn is a much easier method that has gained acceptance. Mulching is also an excellent way to recycle leaves and return nutrients to your lawn and garden.



Fall leaves on turfgrass. Image provided by Storyblocks

Researchers at Michigan State University conducted several experiments that explored mulching tree leaves into the turf as a disposal method. The research showed that a six-inch deep layer of maple and oak leaves could be mulched into estab-

lished turfgrass with no apparent adverse effects. Subsequent studies investigated the additional benefits of this practice. The results suggested that the mulched, decomposing leaves provided nutrients to the turf, promoting quicker green-up in the spring. The mulched leaf pieces also helped to prevent weed seeds from germinating, possibly by covering thin spots and bare soil.

Tips for mulching leaves into turfgrass:

- Set the mower at its highest setting and mow as usual.
- For deep layers of leaves, you may need to make a second pass by mowing in a crisscross or 90-degree pattern.
- Some visible leaf residues will remain on the lawn. This will continue to break down over the winter and early spring months.
- If you are concerned about going all-in with mulching, you can also alternate between mulching and bagging. Use the collected leaves as mulch in landscape beds and vegetable gardens.

If you want to save time this fall and avoid the expense of lawn bags, try mulching your leaves instead of raking them.

Travis Cleveland

References:

Kowalewski, A. R., R. N. Calhoun, and A. D. Hathaway. 2010. *Using Cultural Practices and Leaf Mulch to Control Weeds in Established Turfgrass*. Online. *Applied Turfgrass Science*

Kowalewski, A. R., D. D. Buhler, S. N. Lang, N. G. Nair, and J. N. Rogers III. 2009. *Mulched Maple and Oak Leaves Associated with a Reduction in Common Dandelion Populations in Established Kentucky Bluegrass*. *HortTechnology*

Nikolai, T.A., P.E. Rieke, and N.T. McVay. 1998. *Leaf mulch forum "research and real-world techniques."* 68th Annual Michigan Turfgrass Conference Proceedings. 27: 66–68.

Poisonous Plants in the Vegetable Garden

[Poison hemlock](#) and [wild parsnip](#) may come to mind when thinking about poisonous plants. They both gained considerable media attention this summer for the immediate health risks associated with direct exposure to these plants. [White snakeroot](#) seems to be in abundance this fall. Although with this one, the risk isn't touching the plant but rather consuming tainted milk from dairy cows who fed upon this plant. Many are cautious around these plants, but what if these plants are allowed to grow and then die back in an area that will be used to produce vegetables? Are there long-term risks associated with these and other poisonous plants that once grew where vegetables are grown and harvested?



Poison hemlock, Steve Dewey, Utah State University, Bugwood.org

While it's not uncommon for me to be asked about poisonous plants and their control, recent client inquiries have had a slightly different twist with the primary concern being about the effect these plants will have on the soil and possible risks associated with growing garden produce in these sites. To further explain, one of my clients had cut down poison hemlock plants and left them to decompose on site. Upon further consideration, they were concerned about the soil being adversely affected and turned to Extension for assistance with good questions such as:

- “Are plants grown in the soil where the hemlock was composted safe to eat?”
- “Any idea when the soil will be safe? Anything I can do to help neutralize the poison in the soil? Or to test the soil?”
- “Are certain plants ok to eat vs. others?”

To build on this, a recently created poison hemlock fact sheet states:

“Hand-removed plants should not be burned or added to mulch or compost piles intended for use in areas where additional exposure is likely, as it takes several years for the toxins to dissipate, even in dried plants parts. Repeated tillage/cultivation can control infestations and prevent seedling establishment.”

It should be made clear that the intent of this composting precaution is for preventing *dermal* exposure when handling the compost. No intention was meant for protecting the soil from possible toxicity as it relates to growing produce.

I have never heard of toxic compounds from poisonous plants remaining in the soil and causing future problems with toxicity in humans when garden produce (grown on site) is consumed. Because I am not a toxicologist, I called Illinois Poison Control for assistance and to confirm my guidance was appropriate. I was told by a trained Poison Control toxicologist that there should NOT be a problem with the situation as described by the client. The primary poisoning concerns with poison hemlock are by exposure to skin and eating/ingesting plants directly.

Mulching (and composting) would be discouraged as hands and other skin could be repeatedly exposed. Even dried plants could still affect your skin. The toxicologist concluded by saying that the toxins should not leach from the plants into the soil and that their recommendation is to simply wash future produce before consuming.

Soil testing would not be necessary – I don't believe this specific type of testing exists even. Ingesting the soil by humans would be highly unlikely as it is not palatable, so that risk is very low. I would add too that when plants decompose, they are broken down by sunlight and microbes in the soil. In order to be poisoned by produce growing in the area the following spring, there would have to be several factors at play (available toxins in sufficient amounts that are not degraded or leached away, that are taken up by living plants and accumulated in the edible portions and then consumed in sufficient quantities to cause a poisoning). Remember that the dose makes the poison! A much greater concern should be possible exposure or ingestion to *living* plants rather than produce grown in soil that contained organic matter from these dead plants.

Certainly, if you or your clients find themselves in a similar situation, a call to Poison Control may be warranted and provide peace of mind. Their trained toxicologists are happy to assist with these types of questions.



Poison hemlock seedling, Ohio State Weed Lab, The Ohio State University, Bugwood.org



Wild parsnip seedling, Ohio State Weed Lab, The Ohio State University, Bugwood.org



White snakeroot seedling, Ohio State Weed Lab, The Ohio State University, Bugwood.org

It's best not to allow any poisonous plants to grow where food is grown. They should be safely controlled and removed from the area. Control tactics should be deployed prior to seed development to prevent future infestations. Keep a watchful eye out for future seedlings.

Michelle Wiesbrook

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Travis Cleveland



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