

## Last Issue for 2019

This is the last issue of the Home, Yard, and Garden Pest Newsletter for this year. We plan on publishing the first issue of 2020 in mid-April. As always, your suggestions for improving this newsletter are welcome. Contact me at [tclevela@illinois.edu](mailto:tclevela@illinois.edu). Thanks for your interest and input this year.

([Travis Cleveland](#))

## Leave Overwintering Habitat for Beneficial Insects This Fall!



*Fall flower bed with leaf litter, Sarah Hughson, University of Illinois at Urbana-Champaign.*

Holding off on some fall clean up in the home landscape can provide essential overwintering habitat for beneficial insects and beloved native species like lacewings, solitary bees and fritillary butterflies! Here are some of the habitats these insects can benefit from:

### Leaf litter

Leaf litter can be left as cover in flower beds. It provides good shelter for overwintering beneficial insects. Many species of bumble bees, likely including the endangered rusty patched bumble bee (*Bombus affinis*), overwinter in leaf litter or in the loose soil below. Leaf litter allows insect predators, like spiders, lady beetles and ground beetles, shelter in locations close to their prey and can provide food for macro-decomposers like sowbugs.

However, if you have fruit trees with a fungal pathogen like apple scab, it is beneficial to remove that leaf litter to help reduce disease prevalence the following year.

### Standing ornamental plants

Allowing some standing perennials and ornamental grasses to remain throughout the winter can provide overwintering sites for native solitary bees. Solitary bees often overwinter inside hollow stalks, canes or other standing plant material, where they are protected from the elements. Some species will even block the opening of a hollow stem with plant debris.

Many local fritillary species overwinter as caterpillars on or near their host plants. Swallowtail butterflies like the eastern black swallowtail butterflies (*Papilio polyxenes*) overwinter as a pupa inside a chrysalis. The chrysalises of these species are anchored to stalks or stems of plants. Both chrysalises and caterpillars are well camouflaged, making them easy to overlook and accidentally clear away with debris.



*Black swallowtail chrysalis (Papilio polyxenes), Whitney Cranshaw, Colorado State University, Bugwood.org.*

### Other sheltering sites

Many insects like lacewings and lady beetles, prefer to overwinter in small crevices in the landscape, including spaces between bits of bark on trees, in log piles or in small gaps between rocks. The mourning cloak butterfly (*Nymphalis antiopa*) overwinters as an adult butterfly in spaces between the bark on trees, in wood piles or inside your shed.

Areas with loose soil and abandoned rodent holes can also be safe overwintering sites for some species of native bees, including some species of bumble bees.

[\(Sarah Hughson\)](#)

### Prostrate Knotweed – In Bloom and Noticeable Now

Prostrate knotweed (*Polygonum aviculare*) is a warm season (summer) annual that has been prevalent this summer with the dry conditions. To the untrained eye, it may go unnoticed. However, with colder conditions, this plant takes on a purplish color. The blooms are tiny but they are easily visible at this time too if one stops to look. The flowers are borne in small clusters in leaf axils from June through October but typically go unnoticed due to their small size. The sepals are white to green, with pinkish margins. Seeds then follow which is how the plant reproduces.



*Prostrate knotweed flowers.*

It germinates very early in the spring, typically late February to early March, and first appears when soil temperatures are only in the 40's. The seed leaves (cotyledons) are very narrow and grass-like in appearance, earning it the nickname Knotgrass. With time, seedlings will grow into a circular mat. Stems can extend up to 2 feet long. They are wiry and tough to pull apart especially if the plant has been growing in droughty conditions. The leaves are dull, blue-green, alternate on the stem, long and narrow (up to 1¼ inch long and 1/3 inch wide). The leaves can appear grayish-green or whitish green when infected with mildew fungi. Being a member of the Buckwheat family, it has a papery sheath

(ocrea) surrounding the stem at the leaf base. Prostrate spurge is similar in appearance and in growth habit, however, it has oppositely arranged leaves and the stems exude a milky sap when damaged.



*Prostrate knotweed seedlings.*

An indicator of compacted soils, prostrate knotweed is often found growing in full sun in thin turf or next to sidewalks and driveways where traffic has spilled over. If not for this weed, bare soil would result in many of these areas.



*Prostrate knotweed growing in a landscape bed.*

Prostrate knotweed has a thin taproot so hand removal is an option, but best used on young plants growing in moist soil. Tillage can be used and for turfgrass situations, core aeration can be used to get more oxygen to the roots which can aid in growth of grass. Prostrate knotweed tolerates low oxygen levels in the soil.

Postemergent herbicides for controlling this weed in cool season turf include 2,4-D, dicamba, and triclopyr. 2,4-D is best used in combination with others. Preemergent options include dithiopyr, isoxaben, pendimethalin and proflam. Isoxaben has been rated as excellent in research trials. Due to the early arrival of prostrate knotweed, late fall preemergent applications are often used. For landscapes, these additional herbicides may be used: dichlobenil, napropamide, oryzalin, and trifluralin. The lists provided here are for reference only and may not be all-inclusive. For more information about these herbicides, consult with the Commercial Landscape & Turfgrass Pest Management Handbook. Remember to carefully read and follow all pesticide label directions.

[\(Michelle Wiesbrook\)](#)

## Winterizing Your Spray Equipment

Now is the time to service and winterize your equipment. Your sprayers should be at the top of that list. The end of the season is an excellent time to conduct a deep cleaning and inspection of all your sprayer's components. This inspection will ensure that your sprayer is free of residues, properly functioning, and ready for those early in the spring applications.

Ideally, you should be thoroughly cleaning your sprayers on a regular basis, especially as you switch pesticide formulations. Regular cleaning helps to remove pesticide residues that could cause cross-contamination with other pesticides or fertilizers, possibly resulting in turf injury. Trace amounts of one pesticide can react with another or carry-over to the next spraying, causing damage, especially with herbicides. Thoroughly cleaning your sprayer at the end of the season will also help extend the lifespan of its components. Some pesticide formulations are corrosive, and even small amounts of residue can damage sprayer components, including stainless steel tips and fiberglass tanks when left for extended periods, like overwinter.

Thoroughly clean the spray tank, including all irregular surfaces, such as baffles, plumbing fixtures, and agitation units. The inside of the top of the spray tank is often forgotten and should be cleaned as well. Many applicators incorrectly focus all of their attention on cleaning the sprayer's tank. Even after cleaning a spray tank, residues may remain in the sprayer's screens, filters, and plumbing. Inspect all hoses for wear or tear and for residues that often accumulate in dips and low areas. Check sprayer parts that have dead ends, like the boom's end caps.

Consult the pesticide label(s) for information on cleaning the sprayer and disposing of rinsates. Some pesticide labels will provide recommendations for specific tank cleaners and instructions for how to properly dispose of rinsates. Even though you will be dealing with a product that is very dilute, it doesn't mean that you don't need to use Personal Protective Equipment (PPE).

The next step in the winterization process is to remove as much water from the system as possible. This can be done by allowing the pump to push water through the lines, and then by opening all the valves and allowing the water to drain. Some sprayer's manuals also recommend using compressed air to blow out hosing and manifolds.

Despite your best efforts, water will likely remain in various parts of the sprayer. That remaining water could freeze, expand, and damage your sprayer. The last step when winterizing is to displace and dilute the remaining water with antifreeze. There are different types of antifreeze on the market, so be sure to read the label of the antifreeze to determine if it will work. RV antifreeze, made from propylene glycol, is often recommended because it is inexpensive, works well, and is less hazardous to people, pets, and the environment. To begin, add enough antifreeze into the tank fill the volume of plumbing and hoses. Turn on the sprayer and continue running until undiluted antifreeze exits the nozzles. Be sure to write down how much antifreeze it took to go through the lines so that you will know this for future winterizations.

Proper cleanouts and winterization, while time-consuming, are essential tasks for maintaining your spray equipment. Saving time by skipping steps can result in costly damage and possibly a delayed start while trying to fix all the broken or burst lines. Take the time now to winterize your sprayer properly and be ready for next season.

([Maria Turner](#))

<http://psep.cce.cornell.edu/facts-slides-self/facts/sprayer-clean-91.aspx>

<http://www.agphd.com/wp-content/uploads/2015/05/SPRAYER-TANK-CLEANOUT.pdf>

<https://ppp.purdue.edu/wp-content/uploads/2016/08/PPP-108.pdf>

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd497002.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd497002.pdf)

<https://ppp.purdue.edu/resources/ppp-publications/preparing-spray-equipment-for-winter-storage-and-spring-startup/>

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