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Last Issue for 2018

This is the last issue of the Home, Yard, and Garden Pest Newsletter for this year. We plan on publishing the first issue of 2019 in mid-April. As always, your suggestions for improving this newsletter are welcome. Contact me at tclevela@illinois.edu. Thanks for your interest and input this year. (*Travis Cleveland*)

Brown Marmorated Stink Bug

Brown marmorated stink bug (*Halyomorpha halys*; BMSB) is an introduced species from Asia that was first recorded in Illinois in 2010. BMSB can feed on over 300 species of plants. It can be a pest of fruits, vegetables, field crops, and ornamental plants. In ornamental plants, this can include maples, oak, spirea, viburnum, rose, and ornamental fruit trees, among many others. These insects have straw-like mouthparts that they use to suck fluids from plants. The resulting injury can look like discoloration or dead patches on leaves. In fruits and vegetables, injury can appear as discoloration, lesions or cat-facing.

In autumn, BMSB can also become a nuisance pest in homes. As the days shorten and temperatures cool, adult BMSB will begin to look for overwintering sites. While they would normally seek out crevices in the landscape, gaps in our homes can also provide shelter from the elements. They cannot reproduce inside homes, but they can aggregate in homes and produce an unpleasant odor when they are roughly handled. Once they go dormant for the

winter, they will not become active again until temperatures warm in the spring.

Brown marmorated stink bug (Halyomorpha halys), Kristie Graham, USDA ARS, Bugwood.org

BMSB can be identified by the pale banding on their antennae, dark and light pattern along the edges of their abdomen and the smooth "shoulder" area near their head (image above). Many similar species have a saw-toothed or spiked shoulder area or lack the antennae banding.

Control in ornamental plants:

Hand picking insects from plants and netting susceptible fruits are the first line of defense for protecting ornamental plants from BMSB.

Netting can be a good option for keeping BMSB from injuring vegetables or ornamental fruits.

Netting should be placed over the plants prior to fruiting so this is something that can be done early in the season. Hand picking insects from affected plants and dropping them into soapy water can be done anytime and on any type of plant.

Control in and around the home:

The best way to prevent BMSB from entering homes is to focus on exclusion by sealing any

gaps and repairing window screens. If BMSB find their way into homes, they do not cause damage and can be physically removed by vacuuming, dropping them into a cup of soapy water or smashing them. If aggregations on the outside of the house become a problem, pest control companies may be able to provide a perimeter treatment, though these may be ineffective if they are not timed correctly.

Seasonal Needle Drop

Around this time of year, the U of I Plant Clinic receives many calls regarding yellowing needles on evergreens. The appearance can be quite alarming to homeowners whose seemingly healthy evergreens suddenly turn yellow and drop large numbers of needles. Fortunately, most are witnessing a harmless and natural part of the plant's cycle. Despite the name, evergreen foliage does not stay on the plant forever. Evergreens commonly shed their less productive or older needles. Most pine species shed their needles after 3 to 4 years. The occurrence is more noticeable on some species, such as white pine, and less evident on others, such as spruce and fir.

Seasonal needle drop is usually confined to the innermost (oldest) needles. Homeowners should be more concerned when the new/current season's growth suddenly discolors, wilts, or drops from the plant. Damage occurring to the new growth could be the signal of a more severe pest or cultural problem.

Deciduous conifers have also been known to cause alarm to some novice gardeners. During the growing season, bald cypress and larch trees look similar to their evergreen counterparts. However, they shed all of their leaves in the autumn. Over the years, the Plant Clinic has received several samples from "spruce trees" that had suddenly dropped all their leaves at the end of the season.

Fortunately, for our clients, and their trees, we were able to correctly identify the tree, and let them know the tree's leaves would return in the spring.

Puffballs

Last week a client brought in a large white fungal orb that she had dug out of her grandson's lawn. It was dense, as big as a grapefruit, covered in soil, and was part of a colony. It was the type of fungi that mushroom hunters rejoice over finding, but this woman and her grandson considered it troublesome as it made mowing difficult. There are many varieties of what was eventually identified as a puffball mushroom. Some are smaller and some larger, some pure white and some dirty brown. Puffballs are beneficial because they help to decompose wood, stumps, excess thatch (dead grass), dead tree roots, and other excess organic matter buried underground. They are doing what mushrooms do, decompose organic matter. Most of these fungi feed on this organic matter, breaking it down and recycling nutrients for other plants. Although these organisms cause much concern, they do not take nutrients from the plant material but make them more available to plants.

Puffballs appear when the temperatures and moisture are just right. Recent rains have spurred their growth. The large white fungal orb is known as a fruiting body as opposed to the mycelium. The mycelium is the vegetative part of the fungus consisting of white filaments known as hyphae that may remind a gardener of roots. When they are considered ripe (right temperatures and moisture), they burst open and release

microscopic spores that are spread by water, wind, and tools.

Despite the type of mushroom control measures for fungi are as follows:

- Dig up fruiting bodies when they are young and firm.
- Fertilize the lawn in areas that are prone to puffballs to encourage turf growth.
 Use water-soluble fertilizers at the rate of no more than one pound actual nitrogen per 1000 square feet in the early fall (September), and late spring (May).
- Remove roots, large pieces of organic debris.
- They will disappear naturally once the organic matter is all used up. These fungi can survive in your yard for several years, just waiting for the right time to regrow and create more spores.
- Removing the mushroom does little more than improving the appearance of the lawn as the mycelium is left behind.
- If excessive (more than ½") thatch is present, dethatch in the early autumn or spring, as well as determine why the thatch accumulation is present.
 Aeration will control thatch and allow water to penetrate into the root zone to stimulate more grass to grow.

Lawn Care Fall Wrap up

There are a few things that can be done to lawns at the end of the season that will help to prepare for a good start the following spring. Now is time to get out the landscape management plans and fill in the final details of what worked, what needs to be improved and what

didn't work. Then we need to complete some things in the lawn in order to prepare it for winter dormancy. This is the time to get in the last minute seeding or sodding, repair any damages to the lawn as well as fertilizing for the next spring. Finally, it is time to mow and clean the lawn for the last times.

Mowing

This is probably the only time of the year that you are encouraged to mow the lawn short. Gradually lower the mowing blades as to not put the lawn into shock. The short blades of grass can protect any new growth and allows for more light. Mowing the lawn short at the end of the season can prevent burrowing animals from seeking shelter in a warm place. Mice, voles, and others can create dead spots where they burrow by building up large amounts of grass. They can also create dead paths in the lawn where they travel back and forth as they forage.

Fertilizing

The best time to fertilizer is before the first frost. This will give the lawn nutrients to replace those that were lost during the summer. Once the weather turns cold, the fertilizer will remain in the soil and feed your lawn's roots all winter long.

A top quality lawn fertilizer will contain slow-release or controlled-release nitrogen. The labels for slow-release forms include; ureaform, sulfur-coated urea, milorganite, and IBDU. These forms stimulate uniform growth over a period of time and are

less likely to burn the grass. However, do not expect the quick green up caused by fast-release forms. Slow-release formulations are more costly but worth the price for the improved health of your lawn.

In early fall use a regular lawn fertilizer with N-P-K ratios of 3:0:2 or 4:0:2. For example, a bag may list 21-0-14 or 32-0-16. Amounts don't need to be exact but should be similar to the suggested ratios.

Kentucky bluegrass and perennial ryegrass lawns in sunny locations should receive 1 to 4 pounds per 1000 square feet of actual nitrogen every year. A rate of 1 pound of nitrogen per 1000 square feet is recommended for each fertilizer application. Lawns and other plants in shade grow slower and don't need as much nitrogen as plants in full sun. Therefore, shady lawns should be fertilized at half the recommended rate.

Seeding/Sodding

The ideal time for planting grass seed to either establish a new lawn or renovate a poor quality one is the middle of August to the middle of September. During September grasses grow rapidly in the cool fall weather and have less competition from germinating weeds.

October is not too late to make seeding repairs to dead or trouble spots in the lawn. Be sure rake up the spot, add some topsoil, seed, and more topsoil. Be sure to water those areas. A mulch or cover should not be necessary although it is not discouraged.

Whether seeding or sodding, the key to long-term lawn quality is proper soil preparation. Soil should be tilled six inches deep. Incorporate organic matter, such as compost or peat, when tilling. If soil test results indicate a soil pH problem, sulfur or lime should be added at this time. After tilling smooth with a rake and apply starter fertilizer.

Top quality grass seed will germinate better and be more disease resistant over time. Newly seeded lawns must have adequate moisture for seed germination and seedling growth. The seedbed and later seedlings must be kept moist for six weeks.

Aerating

Check for thatch by removing a plug of grass and soil. One-half inch of thatch or less is not a problem. If there is more than that, your lawn is ready for a thatch-management program.

Thatch is a build-up of living and dead grass roots and stems between the soil and green grass blades. The amount of thatch in the lawn may be checked by cutting three to four inches down into the grass with a shovel and lifting up a piece of sod. Thatch looks like a thick tangle of dark brown roots above the soil level. If thatch is greater than 1/2 inch, the lawn should be core aerated or dethatched in fall or spring. In lawns with a thatch layer over 3/4 inch thick, you should aerate then topdress with a thin layer

(1/8 to 1/4 inch) of soil or compost. Topdressing adds microorganisms that help breakdown thatch.

Cleaning the lawn

September and October are the best months to control perennial broadleaf weeds like dandelions and clover. During this time, the weeds are pulling nutrients and starches from their leaves into their roots. By doing this, they also will draw herbicides into their root systems, thus more effectively killing the weed. Actively growing grass will quickly fill in the bare spots created after the weeds die. Be sure to follow all label directions, and choose a calm day to prevent spray drift.

Rake or shred dead leaves in the yard. Do not wait until the last leaf has fallen to prevent them from matting down and smothering the grass. Raking smaller leaves, such as honey locust, is optional.

Doing these few things can set out your spring lawn for success. The lawn will be full of healthy, lush, green grass that has been feeding on good fertilizer nutrients underneath the snow.

https://extension.illinois.edu/hortihints/archive.html

https://www.purdue.edu/hla/sites/yardandgarden/october-gardening-calendar-2/

https://www.bhg.com/gardening/yard/lawn-care/fall-lawn-care-secrets/?slideId=slide 05fb64be-06df-405c-

<u>a4f3-7b45db581448#slide_05fb64be-06df-</u> 405c-a4f3-7b45db581448

https://www.lawncare.org/winter-lawn-care-tips/

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