

Pest Update (July 10, 2019)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem.

Available on the net at:

<http://sdda.sd.gov/conservation-forestry/forest-health/tree-pest-alerts/>

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any products identified in this publication.

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Plant development for the growing season



The smooth hydrangeas are coming into bloom such as this nice Invincibelle Spirit (*Hydrangea arborescens* 'NCHA1'). These shrubs bloom on new wood, canes that form this growing season so it usually takes till midsummer for flowering to begin but it will last for a month or more.

Not true with the Endless Summer cultivar of bigleaf hydrangea (*Hydrangea macrophylla* 'Bailmer') shown below. Bigleaf hydrangeas bloom on old wood so the flower buds overwinter and bloom the following spring. The Endless Summer hydrangea blooms on old and new wood so (in theory) the plant should bloom throughout the summer.

Unfortunately, it often does not bloom at all and if it does the flowers appear in late summer. The reason is the shrub is not hardy to most of South Dakota, so it dies back to the ground (that eliminates the flower buds on the old canes) and it dies back so severely most of the new growth does not produce flower buds at all.



Timely Topics

Canopy decline and premature autumn foliage color



Autumn Blaze maple turning color.

Symptoms are beginning to appear on trees stressed by the continual saturated soils. The idea soil has some pores occupied by water and others by gases, but the continual precipitation has altered this balance and oxygen has been displaced by water. As soil oxygen levels drop, roots absorb less water and elements and eventually the fine roots begin to die. Oddly enough, the trees are beginning to suffer from the lack of water while standing in water!

One of the most common symptoms of saturated soils is premature autumn color change to the foliage. I am already receiving pictures of maple trees that are turning red. Many of these trees have been standing in wet soils since spring.



I am also receiving pictures of trees that are beginning to lose their leaves. This is a Norway maple standing in a lawn so wet the ground puddled in your footprints as you walked across it. The tree already suffered from being planted too deep, the wet soils were all that was needed to finish it off.

While there is nothing that can be done to stop the rain, tree owners do not need to add to the problem. Be sure any sump pump hoses are not draining near the tree. The additional water is just adding to the problem.



Sump pump hose.

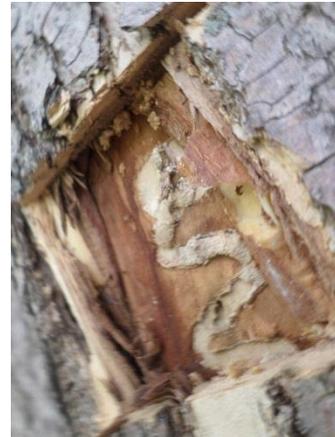
Emerald ash borer update

While the purpose of branch sampling is to determine the extent of the infestation in Sioux Falls and the current life stages (larval instars), it is also revealing just how effective woodpeckers are at finding this insect.



Every time you find a woodpecker peck in a piece of blanded bark, you will find an emerald ash borer gallery beneath the bark that comes to a stop. The woodpeckers listen for the sounds of the larva chewing just beneath the bark and when they detected the larva, they drill through the bark with their beak. They seem to never miss. I have yet to find a peck that does not have a gallery end beneath it.

This is one reason we heavily rely on woodpecker activity, bark blanding and pecks, to help us find infested trees. The early symptoms of an infestation, canopy decline and suckering, are too general and can be attributed to numerous other stressors. Combine these with woodpecker activity and you most likely have an infested tree.



So, can woodpeckers stop an outbreak? Unfortunately, no. While they can kill anywhere from 30 to 40% of the larvae in a tree, too many can still survive to adulthood and spread to other trees.

E-samples

Cicada are buzzing in the trees at this time of year. I am sure there are some that will disagree, but I like the sound of cicadas synchronizing their shrill buzzes on a warm summer evening. This is an insect more often heard than seen so some folks are surprised to find large (usually dead) stout bodied insects lying on their sidewalk or driveway.



These are the annual or “dog-day” cicadas (*Neotribicen canicularis*), with the adults becoming a little more than 2-inches long, usually with a brown to gray body and clear wings that fold over the abdomen like a tent. These are different from the periodical cicadas (*Magiciada*) that emerge every 13 or 17 years. Dog-day cicadas emerge from the ground every summer and spend the months of July and August buzzing away in trees (it’s the males that are making all that noise).

There are also many different cicadas in our state (and not all are after trees). This picture was sent in by Allyssa, one of the South Dakota Department of Agriculture foresters in the Northern Black Hills. This is the Putnam’s cicada (*Platypedia putnami*). A cicada found in pine and oak forests of western US and Canada.



Dog vomit fungus (what a name!) is appearing in wood chip/bark mulch beds in eastern South Dakota. The organism is not really a fungus, but a slime mold. The mold shows up each year in the more humid southeastern part of the state but with the high humid and rainfall seen in most of state this year, the mold is showing up everywhere! The mold will appear almost overnight as a bright orange glob, to the touch almost a slimy Jell-O, but quickly darkens and harden to unattractive gray mass. The mold gets its name since it does look like something (or someone) vomited on the mulch – not a pleasant appearance – but not a cause for concern. If the appearance is annoying, just use a rake to break it up. The mold most common shows up in fresh mulch, wood chips or bark, placed during the spring or summer, and rarely appears the next year as the mulch ages.



The “skeletonizing” of leaves where the upper surface of the leaf is missing yet the lower side remains is a common symptom for damage from **pear slugs**. Pear slug, despite the name, is not a slug but a sawfly (closely related to wasps). The larval stage, the “slug”, is about ¼- to ½-inch long, dark and slimy and they are the ones responsible for the injury to the leaves.



The most common hosts are cherry, cotoneaster, hawthorn, plum, and mountainash. There are two generations a year, one in July and a second in September. The two most common treatments are insecticides containing either carbaryl or malathion and these should be applied when you see the slugs.

Samples received/site visits

Brookings County

What is wrong with this lilac?

The curling shoot tips, and blacked, wilted leaves are due to a bacterial disease known as bacterial blight of lilac (*Pseudomonas syringae* pv *syringae*). This is a common disease of all white-flowered lilacs including Japanese tree lilac, Chinese lilac, and common lilac. The best treatment is to prune the infected shoots to about 3 inches tall sometime this winter. This usually removes the infected tissue and the new shoot arising from the stump are disease-free.

Butte County

Cedar and pine problems

The Rocky Mountain junipers were presenting browning new shoots and some dieback. Unfortunately, the browning and dieback was due to Kabatina tip blight caused by the fungus *Kabatina juniperi*. This is a similar disease to the Phomopsis twig blight, but the symptoms appear earlier in the year as the infection occurs the previous autumn. The unfortunate part is that there is no effective fungicide treatment for Kabatina, just Phomopsis. The only practices that may help is water during dry summers to improve plant health and prune out infected shoots during dry, summer weather. This may help but it is usually not practical.

The ponderosa pine has dothistroma needle blight. The most common treatments are copper or mancozeb fungicides applied as the new growth expands (mid-May) and repeated in late June. Ponderosa and Austrian pines should also receive a third application in mid-July. The treatment should wait till next year for these trees.

Faulk County

Is this herbicide injury to this hackberry?

It may have been, but the sample was too moldy for us to do much with it. The leaves had disintegrated too much for sampling.

Minnehaha County

Pine wilt disease (follow up to last week)

This is a follow-up to the sample discussed last week. One sample was from a tree with only three dead branches and since the entire canopy of an infested tree is usually impacted quickly, the branch dieback may not be due to pine wilt. The second tree may have died of pine wilt but because it died in 2018, a year ago, we may not be able to find any nematodes.

There was blue-stain in the increment cores submitted for both trees and a small number of pine wood nematodes were present in this infected tissue.

Pennington County

Is this verticillium wilt on catalpa?

We see verticillium wilt on maples, elms, smoketree, and catalpa every year or so. Catalpas in which we can isolate the fungus are usually presenting wilt symptoms on foliage over the entire canopy rather than an isolated branch or two as we sometimes see with maples.

We were not able to find the pathogen in the sample so either it was not in the shoots submitted or the tree is not infected. There are a few other stressors, including a shoot borer, that can cause the leaves to wilt on individual shoots in the tree.

Turner County

Dying spruce

The question was there any insects or diseases associated with these samples? The answer is, of course, they are Colorado blue spruce and it seems we can always find a problem on them! The sample from the tree near the garage (#2) did come up empty – no pests found on it. However, this sample was mostly dead twigs lacking needles so there was not much to examine. The tree south of the house (#1) and northwest of the garage (#3) both had spruce spider mites. This is a pest that is blamed for more injury than they really do but sometimes we find evidence of a heavy infestation and that fit these trees. There is not much that homeowners can spray, managing spider mites calls for a commercial applicator.

We also found some spruce needleminer injury on #3 and a few pine needle scales on sample #1.

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