



Tree Pest Alert



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In This Issue

Plant Development.....	1
Treatments to begin now.....	1
Timely topic.....	1
Emerald ash borer update.....	1
The future of ash is not good.....	2
Conifers turning color this winter.....	2
E-samples.....	2
Engraver beetles.....	2
Unhappy hydrangeas.....	3
Samples received/site visits.....	3
Kingsbury County (dying spruce).....	3
Minnehaha County (deformed pine).....	3

Samples

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

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 as the label is the final authority for a product's use on a 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.

Reviewed by Master Gardeners: Carrie Moore, and Dawnee Lebeau

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Plant development for the growing season

We are at 6 growing degree days (GDD base 50) in Sioux Falls. Many plant/pest activities do not start until around 120 GDD, early April last year, so not much is happening yet. A few instances of plant development start earlier. Silver maples will begin blooming around 45 GDD so our first sign of spring is probably a few weeks away.

Treatments to Begin Now

Some people take advantage of the brief periods of 50-degree weather to prune their fruit trees. We are getting close to that time, but I recommend waiting until later into March. We can still experience cold weather in early March after our temperatures begin to warm.



Warm late winter weather may trigger fruit trees to start coming out of dormancy for fruit trees – fooled into waking up a little early. These trees are then vulnerable to cold injury if the temperatures drop again. Three winters in the last decade, Sioux Falls has had early March temperatures drop to -15°F or lower after a brief period of warmer spring-like temperatures. This resulted in some shoot dieback in tender fruit trees.

Pruning in late March means you only need to prune once. Pruning now may mean pruning twice. Once to continuing training the fruit tree and a second time later in the spring to remove any shoots that died from late winter cold. Best to prune once in late March to remove any winter damage and then any additional wood for training.

Timely Topics

Emerald ash borer update

Emerald ash borer larvae are still tucked deep in the sapwood of their hosts. This provides protection from the winter cold, what little we have had this season.



The lowest temperatures so far this winter in Sioux Falls have been relatively mild. A mere -10°F has been recorded twice so far this winter, once in January and February. Unless we see some very cold weather during the remainder of the winter (-15°F or less), it means we will have many emerald ash borers survive to emerge this summer.

The future of ash is not good

We have all heard of the lingering ash. These are trees that survive emerald ash borer and remain after the surrounding trees die. Everyone hopes that will be their tree – betting on the lottery might give better odds.

First, the most common ash tree in South Dakota, green ash, has almost no tolerance to this insect and losses are usually 100 percent. White ash has slightly better odds and a few have survived longer than the ash trees around them.

I inspected some of these lingering ash in Southfield, Mich., about five years ago. A few were about eight inches in diameter (at 4.5 feet above the ground) and looked healthy. When I returned a few weeks ago, the trees had been killed by the borer.



Once emerald ash borer arrives in a community, it will never go away. While most of the mature trees will be

killed by the borer, sprouts will come up indefinitely so there will always be a food source. The borer population will be much smaller, but it will always be there.

The only way to be certain a mature ash tree survives through the outbreak is by insecticide treatments. The insecticides injected into the trunk are highly effective. The only mature ash remaining in many communities that experienced an emerald ash borer outbreak in the late 2000s are the ones that have been treated.

Conifers turning color

People are beginning to call about the color of their evergreens. Color changes during the winter are often not a cause for concern. Many conifers have their foliage turn color by mid-winter, but it turns to the normal green again when temperatures warm.

Many of the spreading and groundcover junipers can have the foliage become plum purple in midwinter. Other junipers turn maroon or bronze. These colors may be viewed as attractive if the owner is aware that its normal rather than a symptom of a pest.



Some ornamental pines, such as Taylor's Sunburst lodgepole pine (*Pinus contorta* 'Taylor's Sunburst') and the Gold Coin Scotch pine (*Pinus sylvestris* 'Gold Coin') pictured above, produce brilliant gold or yellow needles during the winter. Quite a dramatic display against a snow-white background on a sunny winter day. These same needles revert to green as the season warms.

E-samples

Engraver beetles

I am still receiving pictures of woodpecker drills on the tops of ponderosa pine trees out in the Black Hills. As mentioned in the last issue of the *Pest Alert*, we saw an increase in pine mortality from engraver beetles (*Ips pini*) during the past two years. The continuing drought has left trees susceptible to attack by these insects that generally only feed in dying treetops and green slash.

Now is the time to stop stacking small piles of green branches and tops from thinning operations. The material will be fresh enough to attract the adult beetles this April and May. Once these insects have raised a second generation of beetles in these piles the wood will have dried out and these new adults may attack nearby trees.



Unhappy hydrangeas

I received a picture of wilting hydrangeas (taken last summer). The question was why the plants had wilted. The suspected reason was an herbicide application.



Last summer was hot and dry. Hydrangeas are known as water-pigs. They require a lot of water during these conditions to keep their foliage turgid. If they do not receive sufficient water, the foliage quickly wilts. If no one takes note of the wilting foliage and waters, the wilted leaves become discolored along the margin and between the veins. Eventually the leaves will become crisp.

Herbicides can produce similar symptoms so it can be difficult to separate the two. The only way to rule herbicide out is to have the foliage tested within 30 days of the suspected application. Many herbicides break down so quickly that after a month or two little or none of the chemical will be found in the tissue.

So, from a picture, it is hard to nail it down further. The dry summer provided a perfect environment for drought

stress. But herbicides were used nearby and the discoloration pattern is common with some herbicides. The lesson here is call right after the damage is seen, not six months later.

Samples received/Site visits

Kingsbury County, Dying spruce

No surprise that we start the season with a spruce sample. This is one of the most common trees in the state and it can have a multitude of pests and problems.

A problem with samples is we can only tell you what we can see from the sample. There were no signs of insects or pathogens in the material received. The only abnormal feature was some of the shoots were stunted. They were very short, and the attached needles were also much smaller than normal. The number of needles on these shoots, however, was normal. This usually indicates a stress occurred after the buds were formed but before they opened.

Something may have happened this past spring to cause these symptoms. Most likely it is root or soil related so a site visit is needed. I will follow up on what was discovered in a future *Pest Alert*.

Minnehaha County, deformed pine

This visit was to a Scotch pine with deformed and broken branches. The problem was easy to identify once on site as each branch whorl had globs of bubble gum-like pitch. This is the work of the Zimmerman pine moth (*Diorystria zimmermani*). The insect burrows into the junction where the branch connects to the trunk causing breakage.



The insect is now a very tiny larva living in a webbed cocoon-like structure beneath the bark flakes. This spring the larvae will crawl out of its winter home and burrow into the branch whorl. A common control measure is to treat an infested tree with a trunk spray of an insecticide labeled for Zimmerman pine moth and containing permethrin as the active ingredient. The application should be made in April, about 120 GDD, to kill the wandering larvae before they burrow into the wood.