



Tree Pest Alert



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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: Bess Pallares, Carrie Moore, and Dawnee Lebeau

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Plant development for the growing season

We are at 3,480 growing degree day (GDD-base 50) in Sioux Falls. We were at 2,950 at the same date in 2019, and 3,300 in 2020. The warm weather has persisted throughout much of the state though the Black Hills received more than a foot of snow mid-week!

Acclimating to the winter cold is a two-step process for trees and shrubs. They begin preparing for winter as the days become shorter. The second step is initiated by light freezes at night (28°F) and warm days (50-60°F).

While the days have shortened as they always do, we have not had the light frosts that typically occur in October. This means many trees and shrubs are not yet able to tolerate cold temperatures. A sudden drop to extremely cold temperatures - the single digits - might result in some "winter injury".

A warm fall followed by a sudden cold snap does occasionally occur in our region. One of the more recent was the Halloween Freeze of 1991. This was a warm fall with temperatures persisting in the 60s and 70s until Halloween when the temperatures plummeted into the negatives and the snow piled up.

While the immediate affect was lots of unhappy treat-or-treaters, the long term was dieback of trees the following spring. Siberian elms were the species most affected with dead and dying trees dotting many of our western communities. Let's hope for some light freezes soon.

Treatments to Begin Now

The only treatment now is repairing snow damage to young trees. I receive a picture of this young maple that had a broken limb from the heavy snow that fell in the Black Hills. I have received calls from other tree owners wondering what to do about the broken branches.



A torn limb on a young tree can be cleanly cut away and any loosened bark removed. A small stem on a healthy tree can quickly wall off any decay and the long-term impact will be minimal. There is no need to apply pruning paint or wound dressing to any cut surface. It will not reduce decay and can even aid in increasing decay.

Timely Topics

Emerald ash borer update

We are continuing to monitor the larval development. The majority are now in the 4th instar, the largest larvae. These are more than an inch long and almost a 1/4-inch wide, so their network of tunnels causes severe disruption to the movement of sugars in the inner bark (phloem) and water through the outer sapwood.



They are still feeding this fall. I was only able to find a few that were beginning to dip down into the sapwood to form their overwintering cell. I have not yet found any that have developed their winter J-shaped forms.



Since the larvae are still munching a late season snack before they nap for the winter, this means the trees are not getting a rest from damage. I expect we will see more dieback on infested ash next spring due to the extended feeding.

E-samples

Beetles in the boards

A panicked homeowner thought they may have stumbled upon power post beetles in a shipment of lumber. When the stack of boards was pulled apart, these beetles came tumbling out and crawling around.



Fortunately, these are a species of *Telephanus* (we are waiting for them to mail some of the insects for final identification). They are mold and debris feeders that like to hide in dark places such as beneath the bark of dead trees, logs or even between stacked boards. They most likely crawled in while the lumber was stack outside rather than coming with the boards during shipping.

Boxelder bugs are bouncing off windows

The warm, sunny weather has really brought out the swarms of boxelder bugs (*Boisea trivittatus*). The adults are about 1/2-inch long, black with orange to red markings and three yellow stripes just beneath the head. The wings are folded over the back and form an X.



These insects can become a nuisance in the fall as they try to enter homes and buildings to find a warm place to spend the winter – think of them as unwanted relatives. Once in a home the only effective treatment is the same for unwanted relatives – physical removal.

Some years we see very few boxelder bugs and other years – such as this year – they seem to be swarming over the south sides of homes on warm, sunny days. They are most abundant during years with hot, dry summers which describes this past season.

While they do feed on the seeds of boxelder, you don't need a seed-bearing boxelder in the yard to have the beetles in the fall. They can fly throughout the neighborhood in their search for a winter home.

Samples received/Site visits

Hughes County, Dripping spruce

The call was about foam coming out of some cracks in a large white spruce tree. The substance appeared as sweet-smelling bubbles of foam along the trunk. This

may be alcohol flux caused by yeast microbes that are in the outer sapwood. The flux does not harm the tree and is usually associated with drought stress. Watering is the best treatment. The disease is more commonly found on cottonwoods, oaks and elms though there are occasional reports on firs. I have not seen a report on spruce so this may not turn out to be flux upon further investigation.



Roberts County, Oak lace bug

A landowner had some oak trees that presented with discolored leaves, almost appearing scorched when viewed at a distance. Upon closer inspection, the leaves had small, black dots on the undersides and a few insects moving about. The insects were adults oak lace bugs (*Corythucha arcuata*).

These insects, and their young, feed by inserting their piercing-sucking mouth parts into the undersides of the leaves and removing cell contents. This feeding results in yellow or pale spots to appear on the upper leaf surface.

The adults are about 1/8-inch long, tan with darker brown spots. There are extensions of the thorax that are tiny lace-like polygons of veins. These also extend over the wings and this lacy appearance is the reason for the name lace bugs.



The adults overwinter and lay eggs in the spring. There is no need to treat for this insect. The damage caused is rarely a concern for a mature oak – some leaf discoloration is the only result of the feeding.