



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: Carrie Moore and Dawnee Lebeau.

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Plant development for the growing season

We keep having alternating warm and cold spells. It is an annoyance to us – what coat to wear – but can play havoc for trees as they are beginning the process of deacclimation in spring. I am already seeing tip dieback on some of our more tender shrubs. Let us hope the weather makes up its mind and either stays cold or warm.

The temperatures have been warm enough that the Growing Degree Days (GDD- base 50) are beginning. This is the February 21st, 2024, accumulated GDD for locations across the state.

Aberdeen	1
Beresford	11
Chamberlain	11
Rapid City	29
Sioux Falls	8

The drought continues into 2024. The western (Harding to Custer counties), eastern (Grant to Union counties) and northern (Marshall to Perkins counties) edges of the state are classified as “Abnormally Dry” or “Moderate Drought” by the U.S. Drought Monitor.

Treatments to Begin Now

Can you still prune my fruit and ornamental trees if they are budding out?

It would be great if we had a means to slow or stop the deacclimation process and just have them stay dormant a little longer. Unfortunately, this is beyond our control. The process is weather driven.

Buds overcome dormancy through prolonged exposure to low (but not freezing) temperatures. The buds must fulfill their chilling requirements – exposure to a specific number of hours at temperatures between 35° to 45°F. Once they have accumulated enough hours of cold temperatures, the buds are ready to open. They just need some warm temperatures.

These requirements vary among species, but most trees species require about 1,000 to 1,500 hours of chilling. Some even longer. Bur oak remains dormant until May – it has a long chilling requirement. But many of our marginally hardy plants seem eager for spring to come and it just takes a little warm weather in February to get them started.

While we cannot stop the process, we might want to delay dormant pruning just a little longer. Late February and early March are typically good times to conduct pruning of small ornamental and fruit trees. But maybe not this year. If the buds are beginning to expand on the tree – already seeing this on apricots – pruning should be delayed until after the new growth has fully expanded (early June). If the buds are still tight – pruning now is still fine.

What to do about bulbs, perennials and vegetables that are beginning to grow?

While the *Tree Pest Alert* focuses on trees, there have been many calls about flower bulbs, perennials, and rhubarb beginning to pop above the soil along the south sides of homes. Below is a picture send in by Prairey, our Master Gardener Field Specialist. The tender foliage can be injured by the episodes of chilly weather. The foliage may brown, but usually the damaged leaves are quickly replaced in the spring.



If there is a concern about tender plants coming up too early – and temperature still dipping into the teens - adding a little mulch can provide sufficient cold protection. The best mulches are shredded wood/bark, pine needles or straw. If the ground is dry, adding a little water can also be beneficial but do not irrigate if the soil is still frozen. The water will just pool at the surface. The water must soak into the soil to be helpful.

Timely Topics

Emerald ash borer update

We will be starting our life stages monitoring in another month. But we have started looking for parasitoid success. There are three insects that have been released by the Animal & Plant Health Inspection Service (APHIS) in Minnehaha and Lincoln counties that are parasitoids. One is a parasitoid on the EAB eggs while the other two feed in the larvae.

Feeding in the larvae is a good description of what they do. The adult female wasp threads her ovipositor through the bark to “sting” an EAB larva. The female lays eggs into the larva. Once the eggs hatch, the parasitoids feed on the live larva, eventually killing it. The parasitoids then leave the dead larvae as adult wasps.



We have not yet found larvae that were parasitized. But we have found some EAB larvae that were killed by the cold. These were larvae that did not form an overwintering chamber in the deeper sapwood. Instead, they were still in a gallery within the inner bark when the winter arrived. Larvae that are tarty about moving into the sapwood in the fall are more vulnerable to cold temperatures. Snooze you lose even applies to insects.

E-samples

Split trunk on a maple

This is a split Autumn Blaze maple that was bleeding. Maples will “bleed” in the spring as the sap is under pressure and will seep out of any cracks or fissures (or in a bucket if tapping trees for maple syrup). The problem here is not the sap seeping out, it is the crack.



Freeman maple cultivars seem susceptible to forming codominant leader, two upright stems that form at the same point on the lower trunk. One of these should be pruned out during training while the tree was young. The ideal time is when the two stems are about finger-size diameter. These small cut seal quickly and that limits decay. Once the stems become four inches in diameter at their base or larger, it is too late to remove one of them.



Minnehaha County, Construction injury to a maple



The two stems are pressed together with the split now propagating down the trunk. The best treatment now is to have a professional tree company install a support system of a cable in the canopy and two bracing rods through the trunk.

This is a large and old maple that was retained during a construction project. While the intent was good, the execution was poor. Old trees are like us, set in their ways and do not tolerate changes. Covering the root zone except for a small circle around the base and then filling this open space will result in root decline. While it may take years, even a decade, the suffocation of the root system is a death sentence to the tree.

**Samples received/Site visit.
Lincoln County, Ash bark beetles**

Union County, Dwarf globe spruce tree form



A curious person saw these trees in a planting and wondered what was wrong with them. There is nothing wrong with it. It was propagated to look like this!



A homeowner was cutting down a thicket of small ash trees. They noticed these small dark chambers in the wood and wondered what insect was causing this damage. These are chambers cut into the wood by the native ash bark beetle (*Hylesinus aculeatus*). The is a small gray beetle that overwinters as an adult in an ash tree. Come spring the females constructs egg galleries with eggs deposited along these tunnels. The larvae hatch in late spring and feed in tunnels during the summer.

This is a Colorado blue spruce cultivar that naturally grows as a globe (*Picea pungens* 'Glauca Globosa'). When it is grafted on a spruce stem at about three feet you have the equivalent of a living lollipop.

The ash bark beetle is not a serious threat to its host tree. They typically feed on dying – but not dead – branches and stems. They were feeding in drought-stressed ash.