South Dakota State University Extension

Tree Pest Alert

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In This Issue

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 listing 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 started 2026 as we ended 2025 with a roller-coaster ride of temperature highs and lows. Temperatures in Rapid City reached a high of 63°F and a low of 0°F during early January. Sioux Falls temperatures oscillated from a high of 55°F to a low of 7°F.

The episodes of warm weather were enough to start the accumulation of growing degree days (GDD base-50). Here is the GDD accumulation for the first two weeks of 2026 for communities across the state.

Aberdeen	0
Beresford	9
Chamberlain	22
Rapid City	32
Sioux Falls	5

Despite the slight rise in GDD, we should not see any plant development for a few more months (exception: see catkins appearing article in this issue). We have a lot of freezing weather ahead of us.

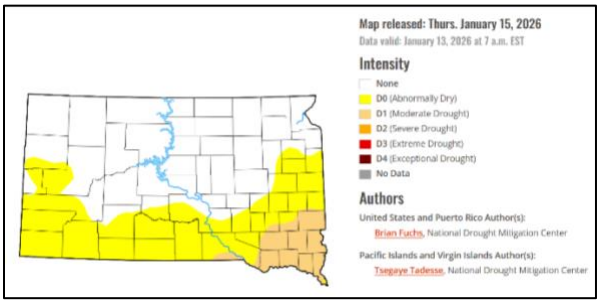
But the soil temperatures at a 4-inch depth beneath sod are slightly above freezing. Roots do not have a true dormancy, but no growth occurs at these near freezing temperatures. We need soil temperatures above 45°F to start root extension.

The roots also are not absorbing much water at these low temperatures. The permeability of roots for absorption is also reduced. So, do we need to water trees now? Winter watering is discussed in this issue under Treatments to Begin If Needed.

Drought monitoring

About 60 percent of the state began 2026 as drought free. This is better than last year when we started 2025 with the entire state under some level of drought intensity. About 35 percent of the state – the lower third - is classified as "Abnormally Dry." The southeastern corner of the state - about 5 percent - is classified as "Moderate Drought."

Here is the current map from the National Drought Mitigation Center at the University of Nebraska-Lincoln.



Treatments to Begin If Needed

Winter watering of trees and shrubs

The recent warm temperatures resulted in a flood (no pun intended) of calls about watering their small trees. This is a good time to review the subject.

The 40 and 50-degree air temperatures cause evergreen foliage to release moisture back to the atmosphere through the process of transpiration. This loss of water can result in winter desiccation injury. This injury is most common on young arborvitae, spruces, and yews. The symptoms of this dehydration injury – browning needles – does not present until spring.

Water loss is also occurring through the buds of young deciduous trees and shrubs. The trees that are most sensitive to this injury are birch, dogwoods, lindens, and maple trees. The symptoms of deciduous tree winter desiccation injury present as twig dieback in the spring.

Soil temperatures at four inches below the sod are at 33ºF or higher in the southern half of the state and in the Black Hills. This means that winter watering may be helpful. It might be most beneficial to the roots of tree seedling. Still, water uptake by the roots will be slow as these soil temperatures slightly above freezing.

The watering should be limited to young trees, which are less than four or five feet tall, and shrubs. The watering should only be done when the snow has completely melted around the plant. The water should not pool and freeze on the ground surface. Water when the air temperatures are above 40ºF and only enough that it will not pool.

Winter watering should be limited to periods of several days of mild weather. Water cannot move up frozen trunks of small trees nor canes of shrubs.

A reminder is that the purpose is to provide just a little moisture as the plant is still dormant and water requirements are minimal. Once or twice a month is usually sufficient.

Timely Topics

Emerald ash borer update

We continue to monitor larval development of emerald ash borer (EAB) from Dakota Dunes to Milbank. Not that much will change until April or May. All the larvae examined are in their overwintering J-shaped form. We will not see any further changes until they start waking up next April.

The winter temperatures so far are well within the normal range of survival for this insect. We will need to see temperatures drop to -35ºF or lower for at least a day or two to have any significant mortality. We are not likely to see this extreme weather event. Unfortunately, the parasitoids released to kill EAB are not as cold tolerant as their hosts. They can be killed by temperatures in the -20ºFs and these are common weather events.

Forest Health Zoom Program on Tree Pests and Problems in 2025 and Predictions for 2026

Wednesday, January 21, from noon – 1 pm MST or 1 pm to 2 pm CST, please join us for a review of the tree pests and problems that occurred in 2025 and what might happen in 2026!

Use this link to register for the Zoom: https://state-sd.zoom.us/meeting/register/JCTMRsQhTXm3OTtIbn9JAw - /registration

After registering, you will receive a confirmation email with information about joining the meeting.

Catkins beginning to appear on willow shrubs

Willows are among our earliest blooming trees and shrubs. It is common to see the fuzzy, silvery catkins in late March. The appearance is one of our heralders of spring.

But we are not even at midwinter, and some willows are already putting out a display of fuzzy catkins. Catkins are a slender, cylindrical flower cluster with tiny flowers

having inconspicuous petals or no petals. A willow catkin either produces staminate (male) flowers or pistillate (female) flowers. The ones we are seeing now are the staminate flowers.

Some woke up a little too early. There are a few scattered catkins open on shrub willows. The catkins appear mostly on willow shrubs along the south side of homes, which is a heat trap during our sunny, warm winter days.

E-samples

Large holes in the trunk of an ash tree – is this EAB?

This picture is an ash tree shows large – pencil size – holes in a distorted trunk. These holes are not carved by emerald ash borer but by our native clearwing ash/lilac borer (*Podosesia syringae*). They are a common borer in stresses or over mature lilacs and ash.

The holes are often associated with either boring dust at the base of the tree or reddish-brown papery pupa casings left protruding from them. Since the borer emerges in the spring, the dust and casing have disappeared by now.

The more common signs are the 1/4-inch circular holes. Repeated attacks often leave dead patches on the trunks, usually associated with branch attachments.

Treatment is a trunk application of an insecticide containing bifenthrin, chlorantraniliprole, or permethrin and labelled for control of borers in ash. The lower ten feet of the trunk is sprayed about ten days after Vanhoutte spiraeas are in full bloom.

More spruce left leaning after the December windstorm

I continue to receive pictures of leaning spruce trees with the question about the feasibility of righting them. The answer to this point is no, it is too late. While conifers have been righted following storms and survived for decades, these were done immediately after the storm.

The exposed roots have dried during the past few weeks of mild weather. This has contributed to greater root mortality which reduces the change of recovery. If the decision has not yet been made whether to right or remove – it has been made for you. Removing the tree is the best option now.

Samples received/Site visits

Codington County, Fire blight in crabapple

Fire blight (*Erwinia amylovora*) is a serious disease of apples, crabapples, and pears. The bacterial disease causes shoot and branch dieback in its host. The progressive dieback can eventually kill the entire tree.

The disease enters the host through the flowers as they are being pollinated or through fresh wounds created by thunderstorms or hail. Infected flowers or shoots can quickly wilt and die. The infected shoots will often curl

and blacken, a symptom referred to as a shepherd's crook.

Once infected, the disease will spread further into the branch eventually killing it though the sunken cankers that form. The disease can move into the trunk which can result in the death of the tree.

Now is a good time to prune any infected branches before the disease moves to the trunk. These branches are easily identified by their hanging dead leaves and darker branch – almost appearing fire scarred.

Pruning during the winter is the best time as the host and disease are dormant. If pruning now, the pruners do not need to be disinfected between pruning cuts.

Deuel County, Buck rub on sumac

This was a small thicket of staghorn sumac (*Rhus typhina*) with long scrapes on the shoots. The scrapes are from bucks rubbing their antlers against the soft, fuzzy stems to remove the dried velvet.

Staghorn sumac is a buck magnet. They find these stems one of the best "posts" for removing the velvet on their antlers. Bucks like smooth-barked stems about 2 to 4 inches in diameter that do not have branches for the lower five feet. Sumac fits these requirements perfectly.

These scrapped sumac stems also become deer signposts, attracting more bucks and does. Sumac thickets are Starbucks for deer. Large stems may be rubbed every year.

Sumac is very resilient to this injury. Unless the rub extends more than one-third the way around a stem, it will survive the injury. Not that this matters as sumac forms thickets by continually sending up new shoots to replace the old ones as they naturally decline and die.

If you are setting up a deer cam, there is no better spot that a sumac thicket with a few old scrapes on some of the older stems – these are spots to find deer!

Minnehaha County, Ginkgo fruit

Now this was an unusual stop. The ground was littered with the still fleshy fruit beneath a 15-foot-tall ginkgo (*Ginkgo biloba*). It is not true fruit, of course, as ginkgo is a gymnosperm, along with our pines and spruces. But it certainly resembles one, like a shriveled apricot with thinner flesh over the seed.

The yellow-brown fleshy coating surrounding the ginkgo seed has an odor. The odor is produced by the fleshy coating as it rots away. The smell is like rancid butter or vomit due to concentration of butyric acid. Fortunately, the cooler weather was dampening the smell.

The odor is the reason we only plant male ginkgo trees, ones that do not produce seed. Since the species is dioecious - a tree is either male or female, not both – it was easy to release male cultivars.

So, why did this tree start producing smelly fruit? Ginkgo takes about 20 years before they begin producing seeds so based on the typical growth rate of ten inches a year, the timing is about right.

This may have been a rootstock escape, a female rootstock on a male stem and the male stem died during nursery production. The fact that the young tree was female was missed. It was not noticed until the tree started to produce the smelly 'fruit.'

This also means there had to be a male nearby to provide the pollen. Sure enough, the adjoining property also had a ginkgo – one not producing fruit. This was the pollinator.

The solution is to get used to smelly fruit every fall. Rake them up and dispose of the trash as quickly as they fall.

Yankton County, Bronze birch borer

This was a stop to look at a birch with lumpy bark. The lumps were from the tunnels carved by the burrowing bronze birch borer (*Agrilus anxius*) larvae.

Bronze birch borer is a close cousin of the emerald ash borer with one major difference. Emerald ash borer is an Asian agrilus. It attacks only stressed ash in its native lands as the borer cannot survive in healthy host. However, it can successfully attack our native ash as they do not have adequate defenses against this nonnative pest.

The bronze birch borer attacks stressed native birches such as paper birch (*Betula papyrifera*). Healthy paper birches are not attacked. But our bronze birch borer can successful attack healthy European or Asia birch.

We no longer plant the European white birch (*Betula pendula*) or its cutleaf cultivar as they are highly susceptible to the borer. Asian birches such as the Japanese white birch (*Betula platyphylla*) cultivars continue to be release despite their susceptibility to the borer.

This tree is a Japanese white birch cultivar that is being colonized by the borer. These attacks begin after about four or five years in the landscape. There are two options. One, remove the tree due to its susceptibility and plant a paper birch cultivar or two, begin a treatment program – much as we do to protect our green and white ashes from emerald ash borer.