



**SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION**

# Tree Pest Alert



**July 15, 2026**

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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 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

This past week's weather was very hot with temperatures in the upper 90s. The hot temperatures pushed the growing degree days (GDD-base 50). It did not push it up as much as it might seem as the GDD is capped at 86°F. Temperatures above this cap do not result in more plant development. Our temperate trees and shrubs are stressed by these high temperatures (just like us).

Even with this cap we accumulated another 160 to 180 GDDs. Here are the total GDDs for communities across the state.

|             |      |
|-------------|------|
| Aberdeen    | 1436 |
| Beresford   | 1857 |
| Chamberlain | 1810 |
| Rapid City  | 1587 |
| Sioux Falls | 1798 |

We are starting to see some fruit ripening. Summercrisp pear reaches maturity towards the middle or end of July, about 1,700 GDD. This University of Minnesota introduction seems closer to an apple than a pear. The fruit is pear-shaped but has a red blush, more like an apple.



The fruit is picked while green but turning slightly red. It should separate easily from the spur if lifted, then given a slight twist – like picking an apple. The fruit can be eaten right off the tree.

Do not harvest it as we do other pears. You do not want Summercrisp pears to ripen on the kitchen counter. Once a Summercrisp pear softens, the fruit become grainy and loses its flavor. This pear is eaten like an apple, crisp with a slight crunch.

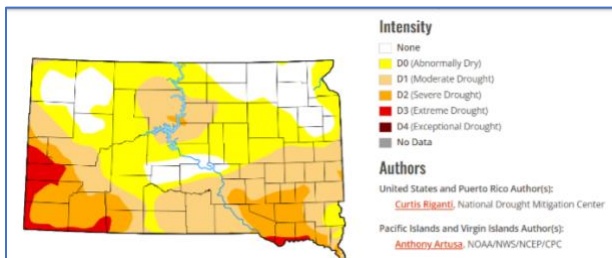
## Drought monitor

We had some rain across the state. This helped reduce the drought intensity in the northern areas of the state. We now have about 18% of the state drought-free. Another 24% is "Abnormal Dry" mostly in the northern half of the state.

A third of the state – from Brookings to Butte county - is classified as "Moderate Drought."

About 15% of the state in the southwest and southeastern South Dakota is under "Severe Drought." The area of "Extreme Drought" is still about 4%. These are the counties in the southwestern corner of the state and those along the Missouri River in the east corner.

Here is the current map from the National Drought Mitigation Center at the University of Nebraska-Lincoln. We still need more rain.



The trees need watering in all the areas of the state that are under some drought intensity. The most common question is how much water does the tree need? That was the question the tree owner had about his 25-foot-tall Colorado spruce.

The established, mature trees in a landscape need about 300 gallons of water a week (assuming no rain). This may be impractical, or expensive, so aim for at least 75 gallons of water a week. It is enough to keep them alive.

## Treatments to Start Soon

### Fall webworm

While the name is fall webworm, we usually start to see fall webworm caterpillars spin their silky nests at about 1500 GDD. Unlike tent caterpillars, the fall webworm spin nests at the tips of branches rather than in the interior.

The best time to treat this insect is when they have first hatched. Waiting until the caterpillars are full size and

have almost finished feeding is revenge spraying rather than effective control.

The treatments include foliage applications of insecticides containing carbaryl, cyfluthrin, or permethrin (among others) that are labelled for this use. The biorational insecticide Spinosad is also effective and has minimal impact on the predators of the webworm.

## Timely Topics

### ***Emerald ash borer update***

We continue to monitor development of EAB during the growing season. Larvae are easy to find now. These are mostly first and second instar larva – the youngest ones. These flat, creamy white larvae with bell-shaped segments are less than one-half inch long. They are winding their way through the inner bark.



The third instar – which we are not seeing yet – are the size that causes significant disruption of the vascular system of their host. We typically see infested trees wilting at their tips in August due to this damage.

### ***Cicadas are buzzing***

The cicadas are buzzing away in tree canopies as they do every year. While they are common and the sound is well-known, what the insect looks like is not necessarily known to many people as the insects hide in canopies.



The insect lives underground for most of its life as a nymph sucking sap from tree roots. They may live several years in this subterranean environment. The last molt of the nymph -the ecdysis – occurs when the nymph leaves the soil to climb a tree or other vertical object. There it will transform into an adult, shedding its old exoskeleton.

We are at the beginning of the cicada summer emergence. The ones that emerge last are the noisiest so maybe the loudest buzzing is yet to come!

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## E-samples

### **Bullet galls on oak**

Bullet galls are the round, 1/4-inch to 1/2-inch, woody “growths” found on oak shoots. These galls are the work of small cynipid wasps. These wasps produce a chemical that causes the plant cells to multiple and create these unusual growths along the twigs.



If the galls are cut open now, there is a very tiny worm in the center. This is the larva of the gall wasp. The adult female wasps will emerge in September and lay eggs on dormant buds. The empty galls may remain attached to the branch for several years.

Bullet galls include an extrafloral nectary (sugary fluid produced by plant glands) that exuded droplets. These sweet droplets attract ants and hornets (just like an open soda can). The purpose of this sweet ooze is not known but maybe attracting ants and hornets might ward off any insect that tries to attack the developing cynipid wasp in the gall.

### **Carpenter ants in decayed honeylocust**

This was a concern about small insects in the interior of a decayed honeylocust that was cut down. The insects are most likely carpenter ants (*Camponotus*).



The ants were not responsible for the decay and decline. Instead, they are taking advantage of the soft, moist, decayed wood in the tree to make a home. They do not even eat the wood, just carve it into nests.

### **Redheaded ash borers in dying green ash**

There are more borers that infest ash than the emerald ash borer. Most of these went unnoticed before EAB came along as they feed in dying ash or one that have recently died. Now dying ash are looked at a little closer to see if EAB has infested the tree.

A dying ash in Moody County – a county where EAB has not been confirmed – was examined for EAB. What was found in the tree is in the picture (next page). This is the redheaded ash borer (*Neoclytus acuminatus*).

The picture was sent in by Tyrel at Dakota Arbor. It shows several life stages of the insect, larvae, a pupa, and a callow adult – one that has not hardened its exoskeleton. These are found in dying ash – trees that have extensive dieback. While their tunneling contributes to the death of the tree, the primary reason is old age and drought.



### **Samples received/Site visits** **Brookings County, Oak blister gall**

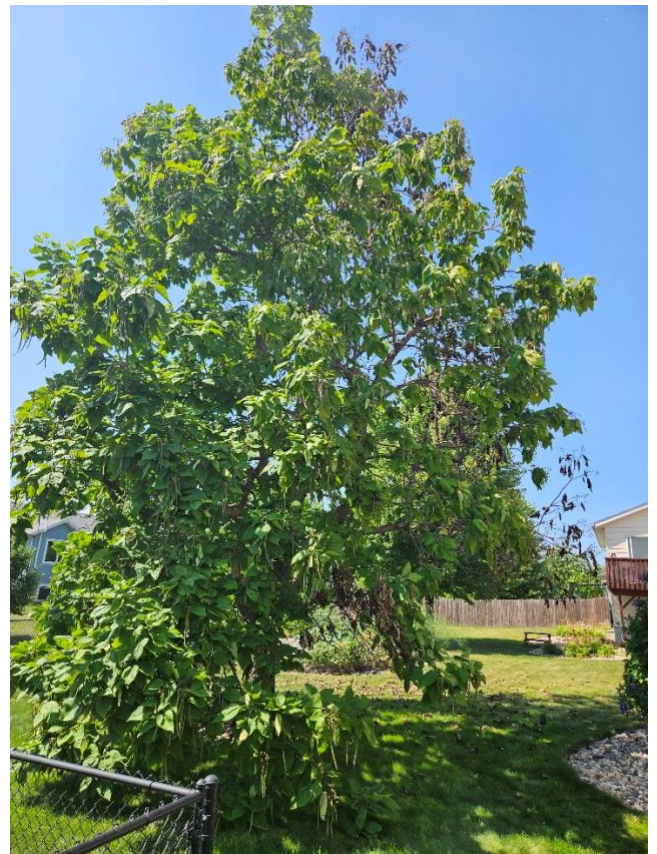
Oak leaf blisters are caused by a fungus, *Taphrina caerulescens*, is a common disease of oaks. The symptoms are raised, small greenish-yellow blisters on the upper leaf and corresponding dark, sunken dots on the underside. These spots enlarge during the season. The infected leaves may fall prematurely.



Once the symptoms appear, it is too late for treatment. Preventative fungicide applications are rarely done as the disease does not appear every year nor is the infection a threat to the tree's health.

### **Minnehaha County, Verticillium wilt on catalpa**

The call was about a mature northern catalpa (*Catalpa speciosa*) that had several branches with leaves that were turning color and wilting. This appears to be verticillium wilt (*Verticillium dahliae*). This is a soil-borne fungal disease that has a wide host range, more than 300 different plants including vegetables, herbaceous perennials, shrubs, and broadleaf trees. The trees most affected in South Dakota are ash (*Fraxinus*), catalpa, elm (*Ulmus*), and maples (*Acer*).



The fungus partially blocks the water transport as it moves in the tree. It also releases toxins. The combination of the two factors results in rapid wilting of affected branches. The disease may produce symptoms on one side of the canopy or be limited to a few branches. Occasionally, the entire canopy wilts at once.



The disease cannot be eliminated once symptoms appear in the canopy. Some trees can tolerate the infection. If the dying branches are pruned, the tree might continue to live without symptoms for many years.

Many times the tree dies with a year or two following the appearance of the symptoms. Once the tree is removed, no ash (not that these are planted anymore), catalpa,

elm or maple can be planted in the same location. The disease can remain in the soil for 15 years or longer.

### **Minnehaha County, Transplant shock on magnolia**

This stop was to look at a recently planted magnolia (*Magnolia*). The leaves had marginal necrosis and spotting. The young tree was also producing some flowers which is a sign of stress.



Magnolia has a fleshy root system that is easily damaged. Disturbing the roots and media while planting a container-grown magnolia can lead to root injury. Severing the circling roots by quartering can cause more injury.

Since the tree was planted just before the hot spell started it is not surprising to see some transplant shock. The solution is to maintain a wood debris mulch to cool the soil. Regular irrigation is also needed.

While this lawn has a turf irrigation system, it still helps to apply water directly over the base of the root (over the potting media). The difference in soil texture between the media and the surrounding soil can prevent water from moving into the media.

### **Minnehaha County, Cytospora canker on Colorado spruce**



This is such a common visit that I could fill the *Pest Alert* with just stops to see mature, declining Colorado spruce (*Picea pungens*). Most of the mature spruce in this row still look nice but the lower branches on many are beginning to lose needles. The affected branches also have thick layers of bluish-white resin near their bases.

The sunken, resin canker is called cytospora canker. It is caused by the fungal pathogen *Leucostoma kunzei*. The fungal cankers girdle the branches. These girdled branches die, and the needles turn purplish brown before falling.

The disease rarely grows into the trunk, but infected branches start in the lower canopy and gradually the lower third or half of the canopy is affected. This means this row of spruce that provided privacy from a busy street are now opening along the lower five or six feet – just where you want the screening. Once adjacent trees have their branches overlap, we typically see the canker killing branches.



One of the best means of managing the disease is through spacing. Colorado spruce should be planted no closer than sixteen feet apart. More is even better but with wider spacing trees will take longer to provide the screen. Sixteen feet is a good compromise.

Cambistat, a growth regulator containing paclobutrazol, has been shown to slow the symptom progression of the disease. It is best applied before the symptoms appear as a preventive treatment but can work if symptoms are mild. This needs to be applied about every two years. It is applied by a commercial applicator.

### **Minnehaha County, Dutch elm disease in Princeton elm**

This is a follow up to a site visit to Princeton elm (*Ulmus americana* 'Princeton') that was presenting symptoms of Dutch elm disease (DED) (*Ophiostoma novo-ulmi*) - wilting and yellowing leaves that are beginning to fall (July 1, 2026, *Pest Alert*). These symptoms were restricted to only a few large limbs on the tree.

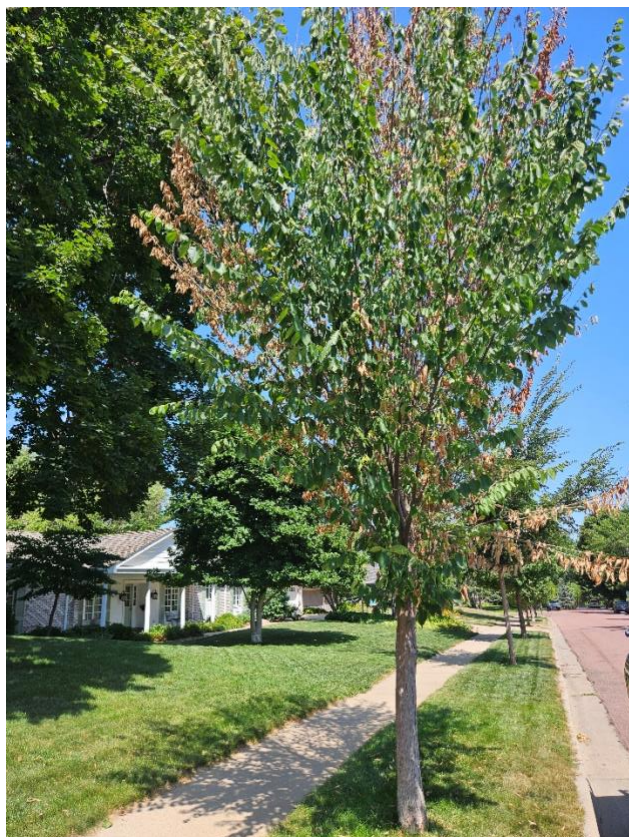
These early expressions of symptoms are not usually due to new infections carried in by beetles. The symptoms of new infections started by beetle-carried spores occur in July and are often limited, at least initially to the leaves at the tips of branches turning yellow and wilting.

Bark beetles and root grafts are how the fungus spreads from host to host. The most effective community-wide effort for DED management is to quickly identify and remove infested trees. The sooner infested trees are removed, the less likely the surrounding healthy elms will become infected.

Small – about pencil diameter – shoots that were presenting symptoms were brought back to the diagnostic lab at SDSU. The testing confirmed that the tree had Dutch elm disease.

Princeton elm is one of the few American elms that has demonstrated tolerance to DED. But tolerance does not mean immunity. This cultivar can become infected but not present symptoms, or it can die from the disease. This is the reason for not planting too many American elm cultivars in one location – you might lose a few.

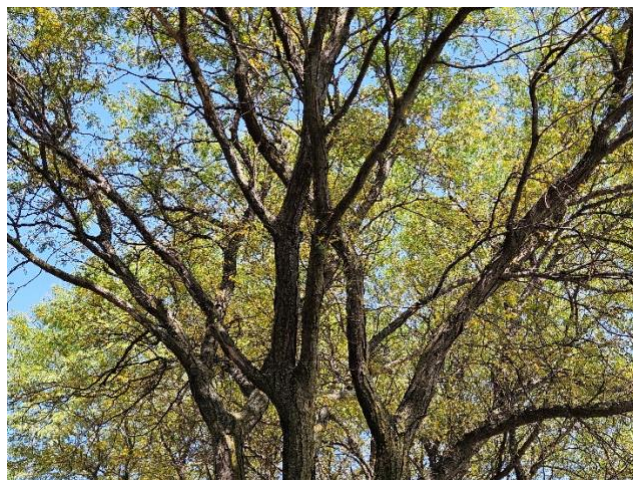
I also made a stop this week to another Princeton elm planted along a street in Sioux Falls. It presents the same symptoms consistent with DED. Samples were collected and the results of the testing will be reported in a future *Pest Alert*.



Seeing two Princeton elms dying from DED is very unusual. The tree is well known for its high tolerance to the disease. But the tree can become infected and die of the disease if stressed. The county has been under some level of drought intensity over the past few years. This may have been the triggering event.

### ***Union County, Honeylocust plant bug defoliating trees***

This was a stop to look at honeylocust trees (*Gleditsia triacanthos f. inermis*) that were dropping leaves – it almost looked like snow - and the remaining leaves turning yellow. Honeylocust trees from Dakota Dunes to Yankton are showing the same symptoms.



The reason for the yellowing was feeding by the honeylocust plant bug (*Diaphnocorus chlorionis*). This insect sucks the sap from the piercing-sucking mouth parts. The feeding results in stippling flecks of yellow around the feeding wound, and eventually the entire leaflet turns yellow.



The plant bug nymphs are about 5/32-inch long and resemble an aphid. Egg hatch began when the leaves started to expand last spring. There is only one generation per year, but when we have a long, hot

summer – as with this year – we can find very high populations of plant bugs all the way into August.

Not much can be done this late in the season. The good news is the trees can withstand the defoliation – they are just going to look ragged this summer.

There is another insect that feeds on honeylocust by sucking sap. It is the honeylocust leaf hopper (*Macropsis fumipennis*). The easiest way to separate the two nymphs is by their motion when disturbed. The leafhopper can move sideways – crab-like - when prodded, a locomotion not common with other insects.