



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

Tree Pest Alert



July 8, 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 hot with high temperatures in the 80s and 90s. The weather was also humid – air conditioners were working overtime. These hot temperatures pushed the growing degree days (GDD-base 50) accumulations. We gained about another 130 to 190 GDDs. Here are the total GDDs for communities across the state.

Aberdeen	1251
Beresford	1681
Chamberlain	1617
Rapid City	1405
Sioux Falls	1609

The summer flowering shrubs and vines are in full bloom. One of these vines is trumpet creeper (*Campsis radicans*), also known as the hummingbird vine. The large, tubular, orange to red flowers produce abundant nectar. Hummingbirds are often seen darting from flower to flower during the summer.



Drought monitor

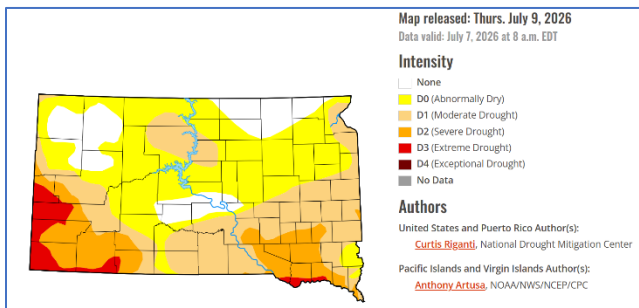
We had some rain across the state. This helped slightly reduce the drought intensity in a few regions. We have about 13% of the state drought-free. Perkins county in the northwest and McPherson, Brown, and Marshall counties in the northeast with a small area of Hughes

and Lyman counties in the center as the drought-free areas of the state.

The farther south you go in the state, the greater the drought intensity. Much of the state is classified as "Abnormally Dry" with a ribbon south of this classified as "Moderate Drought."

About a quarter of the state from Moody to Pennington counties 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.



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 but during late June, it is hard to find anyone. There are lots of adults flying now but emergence is about finished for the year. The adults we are finding now are about it. These will be present until August as they can live about three to six weeks.

There are some small first instar larvae threading their way through the inner bark of infested trees. I have even seen some second instar larvae. 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.

Pine engraver beetle update

Adult pine engraver beetles (*Ips pini*) are the life stage most seen now in the Black Hills. These are about 1/8-inch long, reddish-brown to black with a scooped-out end to their abdomen. There are four small, rounded spines at the rear.



These are the second-generation adults. They are actively burrowing into the green sapwood of falling branches and fresh logs. The small piles of boring dust are evidence of this activity. So far, they seem content to feed in the down trees and branches. Even the fallen trees from last December have enough green inner bark to attract the beetles. We do not see attacks on live trees.

Great ways of keeping tree tubes from damaging stems

Tubes, along with fabric and drip irrigation, are key to increasing survival and growth of young windbreak trees. I was at a producer that had not put tubes on his seedling bur oaks. The trees never grew but became

very short bushes due to deer browsing. He finally put tubes on the trees. They grew four feet in the first year.

Tube must remain on the trees until the stem nearly fills the tube. If the tubes are removed prematurely, the stems may not yet be wind-firm so the trees bend over. The problem with leaving the tubes on is that the sharp, rigid edge can cut into the swaying stem.



The top of the tube can be cut into fingers that are bent outward. This reduces stem damage. Tree tubes can also be purchased with fingers at the top such as the Plantra SunFlex grow tubes.



E-samples

Apple scab

Apple scab (*Venturia inaequalis*) is the most common disease of apples and crabapples in South Dakota. We have lots of crabapples in our state, so it is not too surprising that we have many questions on the disease. Infected leaves often are distorted and contain lesions.

The lesions begin as velvety brown to olive spots that turn black. Infected yellowing leaves are already

beginning to fall. Severely infected trees may be completely defoliated by mid-August.



Fruit infection is like the leaf, with the fruit developing lesions that become brown and corky. Fruit cracking may also occur because of the infection.

Unfortunately, the window for fungicide treatments to reduce the severity of the disease have long passed. The first spray is applied at bud swell. Cleaning up fall infected leaves and fruit is about all that can be done in the summer and fall.

Pear scab

These yellowing pear leaves are presenting the common symptoms of an infection of pear scab. This disease is caused by the pathogen *Venturia pyrina* and is related to a similar disease that occurs in apples known as apple scab.



Pear scab infection results in the lesions along the leaf margin and spots within the leaf which may expand to cover most of the leaf by midseason. The infected leaves will hang for a brief time then fall prematurely. The symptoms differ from fireblight in that the blackened leaves will still be moist to the touch while the leaves on fire blighted branches will often be curled, shriveled and dry.

Lesions may also form on the twigs and fruit. Fruit lesions are more common than those on the leaves. The fruit lesions start as small brown to black spots near the base of the fruit that may enlarge. Spots will also appear by midseason along the side of the infected pears. The lesions may turn black.

Pear scab treatments for home orchards are limited. But along with apple scab, fungicide treatments begin as the buds are swelling. Now it is too late.

Samples received/Site visits

Brown County, Dicamba injury on green ash

The question was whether the dieback and sprouting in the row of ash was due to emerald ash borer. While we do see dieback and sprouting in EAB infested trees, this is usually accompanied by blonding, woodpecker drills and canopy thinning. These symptoms were not present.



But what was present was a line of dead grass and weeds beneath the chain link fence that ran parallel to the row of ash. Now the question became – what was sprayed to kill the grasses and weeds?



It was Roundup (glyphosate) and Vessel herbicides. Glyphosate is a nonselective, contact herbicide so it will kill the plants beneath the fence line. But Vessel was also applied. Vessel is a three-way herbicide containing 2,4-D, MCPP, and dicamba as active ingredients. It is labelled for fence rows and turf but directly from the label, “Do not use this product on or near desirable plants, including contact of spray on exposed root systems or adventitious shoots within the dripline of desirable trees and shrubs, since injury may result.”

While the fence line was within the dripline – the canopy edge – of many of the ash, there is nothing magical about the drip line. It is not the full extent of the root system. Roots can extend out as far as the tree is tall. All the trees were within a tree’s height of the fence line.

Brookings County, Cedar-quince rust

Cedar-quince rust (*Gymnosporangium clavipes*) is so common on cockspur hawthorns right now that it is hard to find a tree that is not infected. The long, whitish threads from the fungal fruiting bodies emerge from the shriveled fruit on these hawthorn trees. The disease also causes premature leaf drop. There are infected trees with most of the leaves shed and only shriveled fruit hanging from the branch tips.



Many junipers can serve as alternate hosts for this disease but eastern redcedar is the most common one. The disease moves back and forth between the eastern redcedar and the hawthorn hosts. It is not the only rust disease that infects hawthorn. Large orange spots on the hawthorn leaves are from cedar-hawthorn rust (*G. globosum*).

Clark County, Botryosphaeria canker of juniper

Botryosphaeria (*Botryosphaeria*) is a fungus disease that is a weak pathogen. We usually see it only when we are in a drought – so it fits for this year. The disease is most common on the Rocky Mountain juniper (*Juniperus scopulorum*) but will also infect eastern redcedar (*Juniperus virginiana*).

The disease presents as a shallow, flattened canker on the stem. These cankers will also drip a very small amount of resin. If the stem is cut at the canker the inner bark is often a dark chocolate brown. The cankers can girdle the stem leaving the top one-third to one-half the tree killed.



Unfortunately, there are no fungicides labelled for control of this disease. The only treatment is to prune out the infected cankers. Fortunately, the disease only infected stressed trees. Irrigation during droughts is the best treatment.

Clark County, Pine wilt disease in young Scotch pines

Pine wilt disease is a lethal threat to Austrian (*Pinus nigra*), mugo (*Pinus mugo*), and Scotch pines (*Pinus sylvestris*) in South Dakota. The causal agent for the disease is a microscopic nematode called the pinewood nematode (*Bursaphelenchus xylophilus*). It is vectored by sawyer beetles (*Monochamus*) that transmitted the nematode through their feeding on shoot tips.

Sawyer beetles are not usually attracted to young pine. Trees less than 10 years old (about eight feet tall) in the landscape or windbreak are not common hosts. Mature pines produce abundant volatiles, especially if stressed by drought, so advertise themselves to the beetle.

Young pines also have strong sap flow. They can “pitch” the nematodes out as they try to swim into the wound created by the sawyer beetle. These two factors limit the infection in young trees. We rarely see the disease in Christmas tree farms that grow five-to-six-foot trees for sale.

Once the trees reach eight to 10 feet tall, we start seeing the disease. We have isolated the nematode from 10 to 12 feet tall mugo pines. We also see it in young Scotch pine windbreaks such as this one.

The most common symptoms are rapid tanning of needles with the twigs throughout the tree quickly becoming brittle and snapping with the slightest touch.

This is due to a blockage of the tubes (tracheids) carrying water up the stem out to the branches and into the needles.

The disease rarely kills an entire windbreak in a year or two. The general pattern is a tree here or there dying every year. It will take a decade or longer before all the Scotch pine in this windbreak are affected.



The best solution here is to (no pun intended) cut your losses. Remove all the Scotch pines while they are easy to remove and plant with another tree species.

Minnehaha County, Transplant stress on Autumn Blaze maple

The two Autumn Blaze maples (*Acer x freemanii* ‘Jeffersred’) have some wilted, blackened, and crisp leaves. A few branches have died back. Many of the leaves are smaller than normal and are tattered. The six-foot tall trees were planted late last fall.



The concern was whether this was due to drift from an adjacent corn field. This is unlikely. The symptoms presented by the trees are not commonly associated with herbicide drift exposure, but common with transplant stress.

The Autumn Blaze maples in nearby lawns were in good health. The lawns beneath them were lush green. The lawn beneath the two trees of concern was patchy with numerous patches of bare ground.



The trees had adequate depth and spread of coarse woody mulch beneath them. They were also receiving irrigation. But the limited root system restricts absorption. Continuing regular irrigation is the only key – that and patience.

Pennington County, Clearwing ash borer in young green ash

I do not often get to see borers – other than EAB – infested young ash. There have not been a lot of ash planted in the state during the past decade. This was a small tree that grew from a wind-blown seed.

The tree had several holes along the trunk with coarse boring dust. These are the entrance holes for the clearwing ash (lilac) borer (*Podosesia syringae*) larvae. This was once the most common, and serious, ash pest until EAB arrived in the country.

The creamy white larvae have three pairs of thoracic legs and a brown head. They begin as tiny “worms” about 1/4 inch long but eventually reach one inch long as they burrow into the wood. They overwinter as mature larvae.

The following spring they form pupae, then emerge from a papery skin left at the exit hole. The adult is a moth but

resembles a wasp, mimicry that protects it from predators. Eggs are laid from mid-May to June in South Dakota. There is one generation per year.



An old control method was to insert a wire into the holes and stab the larva. It does work but requires patience. The tree owner tried this approach and was able to stick a few larvae and pull the pieces out.

The other strategy is to spray the trunk with an insecticide containing bifenthrin or permethrin and labeled for this use. The trunk spray is applied in early May to kill mom as she attempts to lay eggs on the bark. It will also kill the newly hatched larva as the burrow into the wood.

Pennington County, Chlorosis on Autumn Blaze maple

This Autumn Blaze maple tree had yellowish leaf blades with light green veins. This condition – referred to as chlorosis – is due to an iron and manganese deficiency in the foliage. The deficiency is not from a lack of these microelements in the soil but the alkaline soil limiting the absorption by the roots.



The most common means of treatment is either a soil drench or injection or a trunk injection of the microelements. This tree was treated this spring with a

soil drench of iron and manganese. The newest foliage is a little greener but not much.

Soil treatments are effective but require at least a month before much improvement is seen in the new leaves. The leaves that formed before the treatment will usually remain chlorotic for the season. It can take a year or more for the tree to become green again. A tree that has been suffering from chlorosis for years – as evident by the dieback – might be too far gone to fully recover.

At this time, the best approach is to wait until next spring to see if the tree is much greener. If not, removal and planting other tree species that are better adapted to the alkaline soils.

Walworth County, Aminopyralid herbicide injury to hackberry

This is a follow-up to the e-sample discussed in the last issue of the *Pest Alert*. The wilted, tattered leaves did look like the frost injury we have seen on hackberry (*Celtis occidentalis*) this year but not quite. It was worth a site visit.



The site visit made everything clear. The park contained several tree species but only the hackberry had wilted leaves and bare branches. The lawn in the park was almost weed free. This pattern is one commonly seen with a herbicide application.

The park had been sprayed with a rangeland herbicide containing aminopyralid as the active ingredient. The label mentions it controls broadleaf weeds and many tree species. Hackberry is not specifically mentioned on the label, but I have seen numerous applications where legume trees such as honeylocust (*Gleditsia triacanthos*), are killed along with hackberry.