South Dakota State University Extension

Tree Pest Alert

May 28, 2025 Volume 23, Number 15

In This Issue

Samples

John Ball, Professor, SDSU Extension Forestry Specialist & South Dakota Department of Agriculture and Natural Resources Forest Health Specialist

Email: john.ball@sdstate.edu
Phone: 605-688-4737 (office), 605-695-2503 (cell)

Samples sent to: John Ball
Agronomy, Horticulture and Plant Science Department Rm 314, Berg Agricultural Hall, Box 2207A
South Dakota State University
Brookings, SD 57007-0996

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

This publication made possible through a grant from the USDA Forest Service.

Plant development for the growing season

The weather has been pleasant for the past week with the daytime temperatures in the 70s across much of the state. Welcome rains also dotted the landscape though parts of the state, such as Sioux Falls, are still in a moisture deficit.

The mild weather has accelerated the growing degree day (GDD-base 50) accumulation. Many sites added another 50 to 70 GDD during the past week. Here is the current GDD for communities across the state.

Aberdeen	530
Beresford	690
Chamberlain	680
Rapid City	516
Sioux Falls	650

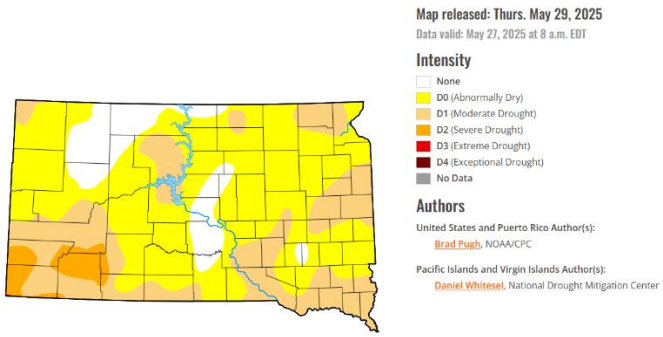
Sweet mockorange (*Philadelphus coronaris*) is in bloom in Dakota Dunes (GDD 720). This is the last of the spring flowering shrubs. It is planted for its orange-scented double white flowers.

Black locust is blooming in Brookings which means emerald ash borer is emerging in this community.

Drought monitor

The rains have reduced the drought intensity in much of the state. About 10% of the state is no longer classified as drought. Another 50% of the state is classified as "Abnormally Dry." Only 4% of the state, the southwest corner, is classified as "Severe Drought."

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



Treatments to Begin Now

Dothistroma needle blight on pine

Dothistroma (*Mycosphaerella pini*) is a common disease of Austrian pines (also ponderosa pines in East River shelterbelts and in some Black Hills communities). The most common symptoms are brown needle tips with yellow to tan spots. The spots have now enlarged to form brown to reddish brown bands and sometimes fruiting structures can be seen in the bands. However, as noted in several previous *Pest Alerts*, these symptoms are common to many other diseases and disorders. Only a lab can determine whether the symptoms are due to this pathogen.

The treatment is a copper fungicide applied now as the candles are expanding and repeated in late June and again in mid-July. There are copper-containing fungicides available such as Camelot^{R} for those individuals who must spray several or more trees. Mancozeb fungicides, a mixture of zinc and manganese, have shown effectiveness for treating the disease.

Phomopsis twig blight on juniper

Phomopsis twig blight (*Phomopsis juniper-ovora*) is showing up on juniper (cedar) plantings throughout the state. The typical symptoms of this disease are the young growing tips turning pale green then light yellowish green, then reddish brown and finally ash gray by late summer. Near the base of these infected twigs, you can find small, black fruiting bodies of the fungus.

The symptoms, and even the fruiting bodies, can be easily confused with another common twig blight fungus *Kabatina juniperi* so it is always a good idea to send in a sample for diagnosis.

Phomopsis twig blight can be managed with applications of fungicide containing Copper or Propiconazole as the active ingredient applied now and continuing at two-week intervals until the spring growth matures, usually by mid-June, but it might be late June this year.

We can begin shearing pines now

Pines set only terminal buds, not along the new shoots as do spruce and fir. Shearing means removing a portion of the current season's shoot growth. This can only be performed on pines during the candle phase while the expanding new shoot is still tender.

If a pine is sheared after the new growth has completely expanded and hardened, no new buds will be set, and the shoot will dieback after the older needles are shed, usually in a couple of years. Shearing begins now and can be performed until the new needles along the candle are about half the size of the older needles. After that time, in a few more weeks, it will be too late.

Shearing is only necessary if shaping an ornamental pine such as a mugo pine to keep it more compact. Other than Christmas trees (and mugo pines) we do not usually shear pines in a formal shape.

Timely Topics

Emerald ash borer update

Adult EABs are still emerging from their ash host in Minnehaha, Lincoln, and Union counties. Peak emergence – where half have emerged for the season – is not until about 1000 GDD. The adults live about three weeks.

The adult EAB is torpedo shaped and about 3/8 to 1/2 inch long but only 1/16 inch wide. They are a bright metallic green. These beetles fly during the day but are rarely seen as they stay in the sunny upper canopies of ash trees feeding on leaves.

When the populations are very high people will sometimes have one land on them! This occurred last year in Canton and Lennox. I received pictures of people holding them in their hands.

Emerald ash borer in Hartford

A local tree care provider found several trees with extensive blonding in the town. It was emerald ash borer and based on the extent of blonding in the trees must have arrived several years ago.

The identification of EAB in this community is not too surprising as it had already been confirmed in communities east and west of two.

Mountain pine beetle infected trees are turning color

Mountain pine beetle (*Dendroctonus ponderosae*) is native to the Black Hills. The beetle population fluctuates so we see years of high tree mortality (1997-2014) and then years of low losses. We are now in a period of low population. Tree mortality is low, often in pockets of less than 25 trees and these are scattered across the northern Black Hills.

Mountain pine beetle attacks trees in late summer – bikers and beetles seem to appear together. The adults tunnel into the healthy pine and lay eggs along the side of these galleries. The eggs hatch within two weeks and the larvae burrow out to feed on the inner bark (phloem). They, and the bluestain fungus that the adults introduce, disrupt the movement of sugars and water between the roots and the needles.

The infested trees maintain their green needles through the fall but in spring the needles develop a rusty color. The needles become yellow-red by early summer. The next generation of adults leave their now dead host in late summer. The needles on these trees begin to fall.

We are seeing trees infested last year already going through a color change to the needles. There are small pockets of yellow-red trees dotting the landscape along with some tan needles. This is not the beginning of a new epidemic but just the normal activity that occurs between these outbreaks.

Spring temperature fluctuation injury continues

The May temperature fluctuations we experienced – 90s in one week and 30s in the next – caused injury to trees that were leafing out during that period.

Hackberry, honeylocust, and maple have been slow to leaf out this spring. Some began to leaf out only last week. The new leaves or leaflets are tattered and many have a black margin. These trees will recover this year if they receive adequate irrigation.

Catalpa and some maples are having their new leaves appear reddish. This is from the anthocyanin, a plant pigment. This is produced in response to cold weather during bud break.

Some maples and honeylocusts have extensive dieback from the early May weather fluctuations. They have

shoot that have died more than a foot or two from their tips. The wood beneath the bark on these affected shoots is brown rather than white. These shoots should be pruned off.

The tip dieback may be cultivar related. I have not seen a dead Northern Acclaim honeylocust as this is one of our most cold tolerant honeylocust cultivars. But I have seen Sunburst (picture above) and Skyline honeylocust with every shoot showing dieback.

E-samples

Hackberry nipple galls are appearing

As if hackberry is not having enough problem with cold injury, many trees are also covered with these small galls on the undersides of the leaves. This is hackberry nipple gall caused by the hackberry nipplegall maker (*Pachypsylla*), a very small psyllid.

The adult psyllids, which resemble very small cicadas, overwinter in the warty bark of the hackberry and once the new leaves appear migrate out to them and lay eggs. Once the eggs hatch, the young nymphs begin feeding and while doing so inject a substance into the leaf which stimulates the formation of a gall to enclose and protect the insect.

The nymphs hatch out from these galls as adults in late summer and either fly about often collecting on window screens and even plugging up the intakes on air conditioners before settling in for the winter on the hackberries. Caulking cracks around windows and doors and repairing holes in screens can reduce the number that enter the house though the adults at 1/10-inch can often squeeze through screen mesh.

While the galls do detract from the appearance of the tree, think of them as zits on a teenager, they cause no significant injury to their host. Occasionally some heavily infested leaves will fall prematurely but generally the tree capability to manufacture food is not reduced by the formation of these galls. Hackberries also continue to produce new foliage as the season progresses. New leaves form after the nymphs have settled in. These new gall-free leaves hide the interior damaged leaves.

Pesticides containing Acephate or Carbaryl as active ingredients can be applied just as the spring leaves are expanding; one application often reduces the extent of damage but will not eliminate the problem.

Removing fabric around windbreak

Fabric is necessary for the establishment of windbreaks. It helps reduce competition with weeds which can quickly colonize the soil, limiting water to the young tree seedlings.

But once the trees are established – usually by five or six years after planting – fabric is no longer necessary. It now can become a liability. The fabric – which cannot stretch – can strangle the expanding trunks.

This is why we recommend landowners check the fabric after about six years. If it is tight against the trunks, the fabric needs to be cut away. This can be done any time of the year. One landowner was completing the task last week around their young trees and sent this picture along.

Scurfy and European elm scales on elm

I received this picture of scales on an elm tree. They had been treating with Imidacloprid for several years without success. Unfortunately, the picture is not clear enough to identify the scale.

There are two common scales that feed on elm trees, the European elm scale (*Eriococcus spurius*) and the elm scurfy scale (*Chionaspis americana*). The symptoms of their feeding – yellow and wilting leaves – are similar but they require different management.

The elm scurfy scale adult is flat, pear-shaped and about 1/8 inches long. The shell is dirty white to gray. This scale is known as an armored scale. The hard shell. They, and their young known as crawlers, do not feed in the phloem so they do not produce honeydew.

The European elm scale adult is oval, brown with a white fringe. They are about 5/16 inches long. The adult and the crawlers produce honeydew, so infested trees are often covered with a sticky film. This film becomes infected with sooty mold so develops a dark appearance.

European elm scale and elm scurfy scale egg hatch begins at about 550 GDD. The eggs are beginning to hatch now in many areas of the state. There are one or two generations per year.

The near invisible young, called crawlers, are moving out to the leaves to feed until this fall when they will return to the twigs and settle down for the winter. Next spring, they will mature to become adults and the cycle continues.

Soil treatments of insecticide containing Imidacloprid as the active ingredient as a soil drench in the spring can control European elm scale but are not effective on armored scales such as elm scurfy scale. The scale on this elm is most likely elm scurfy scale.

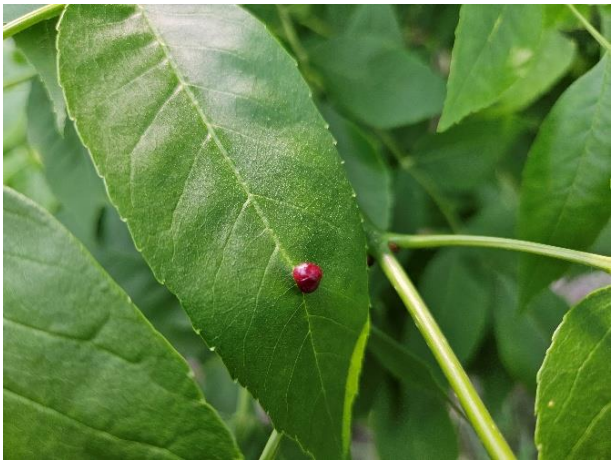
Scurfy scales and the European elm scales can be managed with a foliage application of an insecticide containing Acephate, Bifenthrin, Carbaryl, or Permethrins that is labelled for this use. The insect growth regulator Pyriproxyfen can also be sprayed on the foliage. This will disrupt the molting of the crawlers.

Samples received/Site visits

Lincoln County, Ash bead gall mite

Everyone is out closely looking at their ash trees and noticing anything that is out of the ordinary. This means plenty of site visits to ash trees that are NOT related to emerald ash borer.

Still, these can be interesting stops such as this one. The concern was the appearance of the leaves – the light-colored elongated blister-like bumps on the leaflets. These are the work of the ash bead gall mite, *Aceria fraxini*.



The galls do not harm the tree (or the leaves). It just makes them look a little unsightly, not the lethal threat of emerald ash borer. But both share one thing in common, they are introduced here and probably welcome each other just as neighbors do when they meet in some other country.

Marshall County, Planting stress on spruce

This stop was to look at some spruce trees that were planted a couple of years ago. There were Colorado (*Picea pungens*) and white (*Picea glauca*) trees planted in the rows. Many of the trees were light green or yellow-green color. All the trees had stunted shoots showing much reduced growth for the past year or two.

The most obvious sign of stress was the prolific cone production on the trees. All the trees had an abundance of the woody female cones near their tops. This is not a good sign. Cone production at this age is not a sign of health but of stress.

What these trees need is a layer of coarse woody mulch placed around their base. The mulch would be spread about six inches deep. It should also extend out as a radius for about three feet from the trunks. The mulch will provide a cooler rooting environment for these trees.

They also will need regular watering once the spring rain stops. Each tree should receive at least ten to fifteen gallons of water each week. This care should continue through this year and next.

Minnehaha County, Rust diseases on buckeye

I usually receive a few calls and samples about this disease around the middle of the summer. The warm weather has moved the occurrence up to this week. The is leaf rust on Ohio buckeye (*Aesculus glabra*). The disease, caused by the fungus *Guignardia aesculi*, results in reddish brown blotches on the leaves that often have a yellowish margin.

The blotches continue to expand as the season progresses with the entire leaf often becoming brown by late summer/early autumn and dropping prematurely. The disease is easy to confuse with scorch, particularly this warm spring but the specks of pycnidia – the fungal fruiting structure - may be seen on the leaves with a hand lens.

Scorch is usually more common on the sunnier, windy side of the tree while blotch will be found throughout the tree. The best means of separating the two leaf problems is that leaf blotch occurs in the leaf, which scorch is often limited to the margins of the leaf.

The severity of rust symptoms is cultivar related. Ohio buckeyes planted by squirrels are covered by rust disease. I do not see symptoms appearing on the Autumn Splendor buckeye (*Aesculus* x *arnoldiana* 'Autumn Splendor'). This hybrid is also resistant to leaf scorch.

Union County, Ash leaf curl aphid

This stop was to look at some suspected herbicide drift. While the leaves were curled, the causal agent was the ash leaf curl aphid, also known as the woolly ash aphid (*Prociphilus fraxinifolii*). We usually do not see it until mid or late June, but this year samples and pictures are already coming in.

The symptoms are curled leaves forming rosettes at the ends of ash shoots, particularly the rapid growing terminal shoots of young trees. If you unfolded the leaves, you will find little “fuzz balls” that are aphids. You might also find lady beetle larvae that are feeding on the insects.

Treatment is usually either letting it be, since any treatment will not uncurl the leaves and the lady beetles do a pretty good job of control, or an insecticide containing Acephate as an active ingredient. This insecticide is a foliage systemic treatment and will kill the aphids as they feed (but not remove the damage). Most other insecticides are contact poisons and will not reach the aphids living inside the curls. But nothing will uncurl the affected leaves.

Any insecticide applied as an injection or soil drench systemic insecticide will not be absorbed fast enough to provide any control for the aphids this year. A spring application next year can prevent the problem from occurring next summer.