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

The weather this past week was warm but not hot. The days were in the 80s with the nights dipping to the 60s. It would have been pleasant if it were not for the mosquitoes that plague much of the state.

The warm weather has accelerated the growing degree day (GDD-base 50) accumulation. The GDD increased by about 160 during the past week. Here is the current GDD accumulation for communities across the state.

Aberdeen	1585
Beresford	1745
Chamberlain	1705
Rapid City	1350
Sioux Falls	1711

We are at the point in the GDD accumulation where we do not see many new insects emerging. This does not mean they are gone but tree insects are either inside the tree feeding as borers or resting in the soil as pupae. Sap-sucking insects are still feeding but their activity is declining.

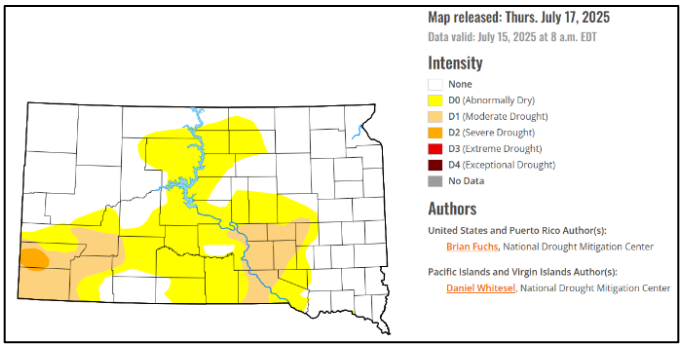
Now we are in the phase where fruit is developing and ripening. Apricots and sour cherries have produced bumper crops this year. There are too many to pick! It is easy to find the ground beneath the apricot trees littered with fallen fruit.

Drought monitoring

The rain shower continued during the past week. Now more than half the state is drought free. Another 31% of the state is classified as "Abnormally Dry." About 12% of South Dakota is classified as "Moderate Drought" and only 1% of the state, western Custer County, is still classified as "Severe Drought."

Before we all celebrate the end of the drought, the long-term outlook for August through October is showing below normal precipitation.

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



Treatments to Begin Soon

Fall webworm

Fall webworm caterpillars are spinning their silky nests in cottonwoods, cherries, and walnut trees. 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 updates

Adult emerald ash borers (EABs) adults are still out but they are becoming fewer in number. I only found one last week beginning to peek its way out of the ash. This does not mean you cannot find adults during the day on an ash tree. They live for three weeks or more, so they are still out there. Just not as many.

The warm weather is aiding larval development. We can find 2nd and a few 3rd instar larvae winding their way through the inner bark of infested ash trees. The longer ones, the 3rd instars, are thick enough that they cannot fit entirely in the thin inner bark and cambial tissue and are etching the outer strip of sapwood. At this size, the larvae are interrupting the movement of sugars and water in the tree – truly a one-two punch. Infested trees begin to decline quickly in August.

Plant Health Care workshop on common tree pests and their management July 30, 2025

The Dakotas ISA chapter is sponsoring a free workshop on common tree pests on the Northern Plains and their management. The focus of the workshop will be identification of the most common insects, mites, and pathogens, their signs and symptoms, and management.

The program will include lectures, field diagnosis and demonstrations on pesticide delivery equipment including injections for emerald ash borer and Dutch elm disease, among others.

The presenters include John Ball, Forest Health, South Dakota Department of Agriculture and Natural Resources, and Martin Shervey, Forest Health, North Dakota Forest Service. Lydia Kan from Rainbow Ecoscience and Jay Goughnour, from Arbor-jet, will also be presenting and demonstrating some of the latest equipment.

The workshop will be held at the “Birdhouse” located in Wylie Park, 2300 24th Ave NW, Aberdeen. It begins at 9 am and concludes at 3 pm. It will be held rain-or-shine. There will be refreshments during the day, but lunch will be on your own. There will be ISA CEUs available.

The workshop is open to all arborists, conservation district employees, city workers, parks workers and Master Gardeners. For more information, contact John Ball at john.ball@sdstate.edu or by text to 605-695-2503.

E-samples

Ash leaf curl aphid

We are still seeing some ash leaf curl aphid (*Prociphilus fraxinifolia*) activity. This picture was sent in by Vaughn, a horticulture extension assistant in Aberdeen.

Once the leaves curl from the feeding by the aphid, they never straighten so the damage is done. There are few aphids left in the curled leaves, but not many. Now that the foliage has fully expanded, the aphids are developing a winged generation. These winged aphids leave the host for the rest of the year. Any treatment that is applied soon will be more for revenge than control.

Elm finger galls

These are elongated, finger-like (if you look closely), yellow-green galls appearing on the upper side of elm leaves. These are caused by the feeding of an exceedingly small eriophyid mite. *Aceria parulmi* (syn *Eriophyes parulmi*). You cannot identify them without an microscope, but their galls are diagnostic so if you find a gall like this you know who did it!

The mites do not harm the tree, other than cause these bumps on the leaves. So, there are no treatment recommendations. Think of them as tree acne.

Yellowing maple leaves

Maples with yellowing leaves are a common sight. A yellow leaf blade with the interior veins remaining green is known as chlorosis. This is usually due to the lack of iron and/or manganese in the leaf.

Chlorosis is not common to all maples. We rarely see chlorosis in Norway or sugar maple nor boxelder. It is common in red and silver maple along with their hybrid, the freeman maple, and its many cultivars.

The lack of iron and manganese in the foliage is not due to their absence in the soil. Our South Dakota soil has adequate amounts of these microelements. The problem is our alkaline soils render them unavailable to the trees, at least in the quantities they need to maintain green leaves.

Merely adding iron to the soil will not help unless it is the chelated form of iron FE-EDDHA (Ethylenediamine di2-hydroxyphenyl acetate ferric). This is available in water-soluble iron chelate products. Chelated forms of manganese are not effective and can make the problem worse.

The best solution is either injecting the needed microelements directly into the tree or using implants containing iron or manganese. These provide several years of green foliage. The injectable products are available from commercial applicators. The implantable products are sold in many garden centers.

Another management option is adding elemental sulfur to the soil to lower the pH. Ideally the soil pH is less than 7.0 to avoid chlorosis. If the pH is only 7.3, adding elemental sulfur may be sufficient to lower the pH. If the soil pH is greater than 7.3, adding sulfur may not be able to lower the pH enough or it will take years of annual applications to achieve the desired pH. Sulfur should be incorporated into the soil which is also difficult to do surrounding an established tree.

Note: chlorosis in river birch, red oaks and swamp white oak is due to iron deficiencies, not manganese.

Samples received/Site visits

Codington County, Pine tortoise scale

This is a Scotch pine (*Pinus sylvestris*) with yellowing needles that are covered with sticky, black powder. The twigs are covered with the dome-shaped reddish brown female scales called pine tortoise scale (*Tourmeyella parvicornis*). The adult females are sessile, remaining in one spot as the shell forms around them.

These scales are dead now. They died last spring and their mobile young, called crawlers, have started hatching at 500 GDD with the last one hatching at 1,200 GDD. The 6-legged crawlers are pink to red with a flat oval shape. You can find them crawling around their dead moms as they find a place to begin sucking sap.

Pine tortoise scale is a soft scale, so they suck sap directly from the sugary phloem tissue. They cannot utilize all the sap they ingest so some is excreted out as honeydew – a sugary liquid. The honeydew film becomes infected with a black, powdery sooty mold.

Codington County, Codling moth stings on apple

This small, developing apple had a few small holes in the fruit. Once you cut the fruit open, there was only a small wound in the flesh. This is a “sting” from a codling moth (*Cydia pomonella*) larva that died while penetrating the skin of the apple. Not every attack is successful. The thicker and firmer skin of some apples resists penetration by the larvae.

Lincoln County, Zimmerman pine moth

Not all the dying Scotch pines are infected with pine wilt. If only a few branches along the same side of the tree have discolored and dying needles, the problem may be Zimmerman pine moth (*Dioryctria*). This is one of the most common conifer borers in windbreaks and community trees across the state.

The adults are not beetles, but moths. They fly during late summer at about 2,000 GDD. The female moths lay eggs in the rough bark where the branches connect with the trunk. The eggs hatch in the fall but the tiny larvae do not feed but crawl beneath bark flakes and spin an overwinter cocoon known as a hibernaculum.

When the weather warms in the spring, the larvae emerge from their cocoon and burrow into the trunk when a branch connects. This site is easy to spot from all the pitch the pines produce to push the burrowing larvae back out.

Usually, the larvae win and spend the rest of the summer burrowing into the trunk and branch. This weakens the attachment, and infested branches will often snap off.

The next treatment window is coming up at about 2,000 GDD. Trunk applications of an insecticide containing Permethrin that is labelled for this use are made then to kill the female moth and the newly hatched larvae.

Minnehaha County, Cedar-quince rust on hawthorn

Cedar-quince rust (*Gymnosorangium 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 bare trees with only shriveled fruit hanging from the 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*).

Minnehaha County, Pear scab

Pear scab is showing up across the state. The wet spring weather was perfect for spore germination on the leaves. This disease caused by the pathogen *Venturia pyrina* is related to a similar disease that occurs on apples known as apple scab.

Pear scab results in the infected leaves developing a blackened margin, sometimes covering most of the leaf. These leaves will hang for a brief time then fall. Infected trees may also have lesions on the twigs and the fruit.

The symptoms differ from fireblight in that the blackened leaves will still be moist to the touch while the leaves on blighted branches will often be curled, shriveled and dry.

Treatment for pear scab would have started last spring just as the buds began to open. It is too late for any treatments at this time.

Stanley County, Dicamba injury to Japanese tree lilac

This Japanese tree lilac (*Syringa reticulata*) tree was covered with curled, discolored, and distorted foliage. These are classic symptoms of exposure to a growth-regulator herbicide. The lawn and stone mulch beneath the tree were almost weed-free so a herbicide must have been used (or someone did a lot of weed pulling).

There was herbicide used around the tree last spring. It contained Dicamba along with 2,4-D and 2,4-DB. The turf herbicide clearly stated that the product should not be used on or within the dripline of desirable trees since injury may result. It did.