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 temperatures were very pleasant during the past week – warm days and cool nights – and lower humidity! But it will not last as warm to hot temperatures are in the forecast – summertime weather is not over yet!

The mild temperatures nudged the accumulated GDD (base-50) by more than 100 DD during the past week. Here is the current GDD accumulation for communities across the state.

Aberdeen	2360
Beresford	2800
Chamberlain	2853
Rapid City	2320
Sioux Falls	2792

Fall is the season for fruit. Apples and pear trees are loaded with ripe fruit. The American plums (*Prunus americana*) have branches that are hanging under the weight of the abundant crop.

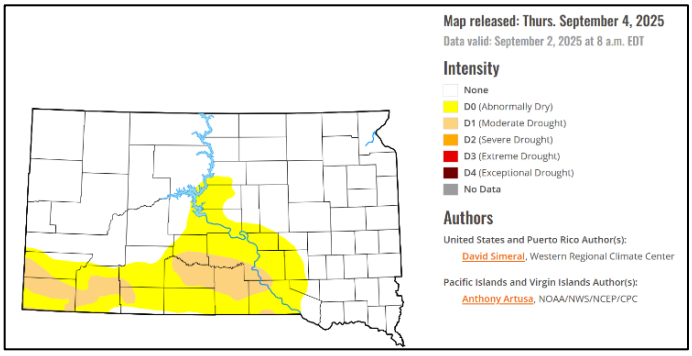
This native shrub forms thicket that are near impossible to push through – with the pointed spurs it makes a strong barrier. The fruit is sweet, but the tough skin has a lot of tannic acid so peel to enjoy the juicy taste.

Drought monitoring

The rain was very scattered last week. Many areas missed the precipitation; others had a brief shower or two. Almost 75 percent of the state is drought free. Another 20 percent of the state is classified as 'Abnormally Dry.' About five percent of South Dakota is classified as 'Moderate Drought.' This is the

southwestern part of the state. The drought at some intensity level has persisted here during 2025.

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



Treatments to Begin Now

Planting acorns

Acorns are littering the ground beneath the bur oaks, so it is not too surprising if some folks wonder about starting a tree from them. It is easy to do. First collect the acorns from the ground, not from the tree. They are not usually mature until they fall. However, do not wait too long to gather them as you have a lot of completion from squirrels and birds.

Next, examine the gathered acorns and discard any that have small holes (indication of weevil damage) or obvious decay. Place the ones that pass this test into a bucket of water and discard any that float to the top. The ones that are left have a good chance of germinating.

Plant the bur oak acorns this September into nice garden soil. Bur oaks, as with many members of the white oak group, begin their germination process during the warm fall. The acorns should be planted at a depth of about three times their diameter. I recommend placing some chicken wire over the acorns to keep the squirrels from digging them up. Water the soil and add a thin layer of mulch or straw.

If you follow these instructions, you might find a 30 percent germination rate, meaning three trees from every ten acorns planted.

Timely Topics

Emerald ash borer update

We continue to monitor larval development of emerald ash borer (EAB) from Dakota Dunes to Milbank. The larvae are in their 3rd instar, but we see a few 4th instars appearing. The 4th instar will feed into October then begin to burrow into the sapwood to spend the winter.

If a tree has not yet been treated for emerald ash borer, it is better to wait until next May. Any insecticide injected into a tree now is not likely to kill many larvae yet this fall.

The focus in Sioux Falls is now removal of dead private ash trees

The City of Sioux Falls has done an excellent job of avoiding the emerald ash borer induced -ash spiral. After EAB was confirmed in the city back in 2018, the city began a targeted ash removal plan. Ash street trees, regardless of whether they were infested or not, were moved unless the adjacent homeowner agreed to treat them.

This effort prevented the explosive death curve where the city would become overwhelmed with removals by about 2023. That did not happen thanks to their efforts. Now the city is focusing on parks and natural areas along the river.

The challenge to managing EAB is ash trees on private property. Too many homeowners did not heed the call to either begin removing their tree or start treating it. They just procrastinated, did nothing, and now have a dead tree in their yard. These are the owners, not the city's responsibility.

Standing dead ash trees – at least those killed by EAB – do not stand very long. They usually fall within five years and many fail much sooner. Also, the longer these trees stand, the more expensive the removal is due to the increased risk to the tree crew.

Yellowjackets gone wild

Any fallen apple or pear is buzzing right now. As these fruits decay or become partially eaten by critters, the juicy sweet flesh attracts yellowjackets (*Vespula*). These wasps are about 1/2-inch long, yellow with black markings and have a narrow waist.

Yellowjackets are attracted to the sugary flesh of the fallen fruit. It is common to find a swarm of them feeding in a large wound on a fallen apple. Do not disturb them as they will attack. Our yellowjackets make the tracker jacker of 'Hunger Game" fame look mild in comparison.

The best means of reducing the threat is to promptly pick up and dispose of any fallen fruit. Any fruit on the trees that shows insect or bird damage should also be

removed. This reduces the attractiveness of the tree to the wasps.

The yellowjackets are also infesting another tree – bur oaks. They are not after the acorns (the fruit) but the woody galls. These small galls – called the rough bulletgall -- are the work of a tiny gall wasp (*Disholcaspis quercusmamma*). This wasp does not sting people but does cause the tree to form a woody gall around the insect.

These galls secrete a sugary nectar though their extrafloral nectaries. This liquid becomes colonized by a sooty mold which gives the galls a dusty appearance. The sugary nectar also attracts yellowjackets so be careful grabbing a bur oak branch in late summer!

E-samples

Cottonwood rust disease

This picture was sent by a tree owner that noticed these tiny spots appearing on their cottonwood “almost overnight.” This is melampsora rust of poplars (*Melampsora*), which includes cottonwood as a host.

The disease first appears as small yellow spots on the leaves along with orange pustules on the undersides. Infected leaves may brown as the season progresses and fall prematurely.

The disease has a complex life cycle, as do many rust diseases, traveling between poplars (aspens, poplars, and cottonwoods) and conifers. The disease appears on the poplars when we have some summer rains – which we have had in some areas of the state – but we do not see the disease every year on the same trees.

Cottonwoods are rarely harmed by the infection and late season defoliation. The most common control is to rake up and dispose of the fallen leaves, but this is rarely effective in a landscape setting. High-value cottonwood may be sprayed with a preventative fungicide in the spring. A common active ingredient for these treatments is Propiconazole.

Red oak girdled by nylon strap left on at planting

The owner of this red oak (*Quercus rubra*) sent in a picture of the tree and the strap they found embedded in the trunk. They could not pull the strap out. The question was, should they just remove the tree?

Straps and twist-ties left on a tree at planting often kill the tree. As the tree’s trunk expands, it overgrows the straps or ties. This can cut off the cambial tissue which generates new inner bark and sapwood which can kill the tree.

Sometime trees successfully overgrow the strap or tie. The material just becomes incorporated into the wood and the tree survives.

This may be what occurred here as the tree appears healthy. I would give it another year or two before deciding to remove it. It might make it!

Samples received/Site visits

Beadle County, Leaf notching on lilacs

People are noticing strange notching on the margins of their lilac leaves. This is feeding damage from a root weevil. There are at least four root weevils, strawberry root weevil (*Otiorhynchus ovatus*), the rough strawberry root weevil (*O. rugostriatus*), the lilac root weevil (*O. meridionalis*), and the black vine weevil (*O. sulcatus*).

They spent the early part of the summer putting notches in the leaves of lilacs (*Syringa vulgaris*) and other plants. While the notches may have been noticed now, they have been there for more than a month.

The root weevils overwinter as mature larvae in the soil which spend some time feeding on the roots of a wide range of plants from clover to spruce. The insect pupates in the spring with the adults emerging from the soil in June. The adults do not fly but climb up on the plants at night to feed and lay eggs. If they are disturbed the adults quickly drop to the ground and hide. They are not easy to find.

No treatment is needed, as the damage is already done. The damage to the lilac is insignificant so no treatments are ever needed to control the adults. Root feeding by the larvae may cause serious injury to their host. If notching is also noticed on vegetable crops, treatments may be necessary for these hosts.

Brookings County, Leaf spot disease on lilacs – again

The calls and visits continue for lilacs defoliated by leaf spot diseases. Leaf spot diseases, pseudocercospora and septoria among others, on lilacs are causing concern in eastern South Dakota. These leaf spot diseases begin as brown spots starting at the margins and progressing to blotches and eventually defoliation.

Most of the calls and visits are for lilacs in windbreaks though I have seen in in landscape as well. I have looked at some windbreaks this past week where every lilac in a row is bare except for a few leaves at the tips. These diseases require warm, humid conditions to flourish, and it has been wet and humid this year.

These leaf spot diseases are not a threat to otherwise healthy shrubs. Lilacs can withstand a year of defoliation, so no control is always necessary. If the lilacs were affected last year and again this year, a fungicide application of Chlorothalonil (labeled for this use) can be made just as the leaves are opening next spring to reduce the severity of the disease.

Codington County, Pear scab

These pear leaves are presenting the common symptoms of an infection with pear scab. This disease is caused by the pathogen *Venturia pyrina* and is related to

a similar disease that occurs on 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. These 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.

There will also be lesions on the twigs and fruit with pear scab. Fruit lesions may be 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. Bordeaux mixture (a mixture of copper, sulfate, and lime) and other copper fungicide can be used from bud swell to bloom on a 10-to-14-day schedule. These should not be used after blooming as copper may cause russeting, a chemical burn, of the fruit.

There is increasing concern about the long-term use of copper as a fungicide spray as this element can accumulate in the soil and cause harm to microbial soil organisms. Fungicides containing sulfur may be used instead on a similar schedule. Neem oil is also an alternative and is labelled for this use. There are also fungicides containing Mancozeb as the active ingredient that may be used for controlling pear scab.

Since the disease overwinters on the fallen leaves, raking the leaves in the fall or mowing short to hasten decomposition may be helpful for control next year.

Hamlin County, Codling moth larva in apples

I looked at some lumpy apples in a home orchard where the fruits had large holes on their sides or bottoms. The holes were covered with reddish-brown granular debris. When I cut the apples in two, I found small caterpillars, but it was better to find them than eat them! These are the ‘worms’ of the codling moth (*Cydia pomonella*).

The pinkish larvae (with a brown or black head) are found in or near the center of the apple or pear. They feed on the seeds, not the flesh of the fruit but do a lot of damage to the flesh as they tunnel through the fruit.

There are two generations per year of this insect in eastern South Dakota. These may be larvae from the second generation. The first-generation larvae appeared in June, as did most of the damage.

There is not much that can be done at this time. Once the larvae are in the fruit there are no insecticides that can be used. The best approach now is to remove and destroy any infested fruit.

Lincoln County, Cedar-Hawthorn rust

Crabapples and apples are not the only trees to share a rust disease with junipers. There is a cedar-hawthorn rust (*Gymnosporangium globosum*). We start to see the symptoms appearing on the hawthorns in mid to late summer. This is an Arnold hawthorn (*Crataegus* x *anomala* syn *C. arnoldiana*) in a windbreak.

The disease is like cedar-apple, in that the pathogen moved back and forth between the two hosts. The spots seen in the picture are related to the fruiting structures that are producing the spores that will now infect the cedars (junipers).

The disease cannot be controlled on the hawthorns at this time of year, nor the crabapples in the case of cedar-apple rust. Managing the disease on the hawthorn or crabapple requires fungicide applications beginning in the spring to protect the expanding foliage from the disease. Once the disease enters the leaf there is nothing that can be used by homeowners to prevent the infection from continuing.

One of the most common fungicide active ingredients used for these rust diseases is Myclobutanil. This ai is a preventative treatment – killing spores before they germinate – but it also is effective if applied within four days of an infection starting. The first application is applied when the orange telia horns appear on the junipers, but these might be hard to find.

The horns for cedar-hawthorn and cedar-apple rust appear at the same time so seeing either is an indication to start spraying. These horns start appearing in mid-May, so the first application starts then and continues every 10-day interval until mid-June when the horns wither and stop releasing spores.

The disease is not fatal to the hawthorns as infections come and go depending on the spring weather. It is not usually necessary to spray windbreaks because of an infection.

McCook County, Willow cone gall

An interesting gall showing up now is the willow cone gall - also known as the pinecone gall - created by the willow cone gall midge (*Rhabdophaga strobiloides*). The adult midge lays an egg on the expanding terminal bud and the feeding by the larva causes this pinecone shaped growth to develop.

A single midge larva is inside each cone gall and will form a pupa next spring and then emerge as an adult fly. There is no effective treatment, nor does there need to be as the galls usually only result in some distorted branches.

Minnehaha County, Cedar-apple rust

This is a similar rust disease that appears on apples rather than hawthorns (see discussion under Lincoln County sample). This disease is also frequently seen this year as the spring rains provided the perfect infection conditions for the disease.

Treatments are the same for this disease as with cedar-hawthorn rust. The difference is treatments are more commonly applied to susceptible crabapple cultivars as no one wants to look at a defoliated crabapple in late summer. The disease can also infect the fruit of susceptible apple cultivars so treatment for these trees is often necessary.