



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

Tree Pest Alert



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In This Issue

Plant Development.....	1
Treatments to start now	2
Fall planting	2
Timely topic	2
Emerald ash borer updates	2
Ash bark beetles, another beetle in declining ash	2
Forest health Zoom program on the best shrubs	3
E-samples	3
Dutch elm disease in American elm	3
Cedar-apple rust on apple leaves	3
Sample received/site visits.....	4
Brown County (Lilac leaf spot, not herbicide)	4
Brown County (Tiny pears).....	4
Day County (Apple woolly aphid)	5
Kingsbury County (Update to mysterious decline of ash).....	5
Marshall County (Chicken-of-the-woods fungus)	5

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 cool and wet, warm to hot with a little humidity added in to make us wish for crisp, cool fall weather. It looks like we may see more fall-like weather in the week to come.

The growing degree days (GDD-base 50) accumulation was around another 100 GDDs during the past week. Here are the total GDDs for communities across the state.

Aberdeen	2,742
Beresford	3,254
Chamberlain	3,289
Rapid City	2,973
Sioux Falls	3,248

Black chokecherry (*Aronia melanocarpa*) fruit is hanging from the branches. The clusters of 1/3-inch purplish-black fruit stand out against the glossy, green foliage of this shrub.



The other thing to notice is nothing has eaten the fruit. It is a very sour fruit so most birds will not touch it before the berries have been through several hard frosts. It has the name chokeberry for a good reason.

Anything this sour must be good for you (anyone remember having to take a teaspoon of cod liver oil every day as a kid). The fruit is high in antioxidants. It is sold as aronia juice (no one would buy a juice labelled

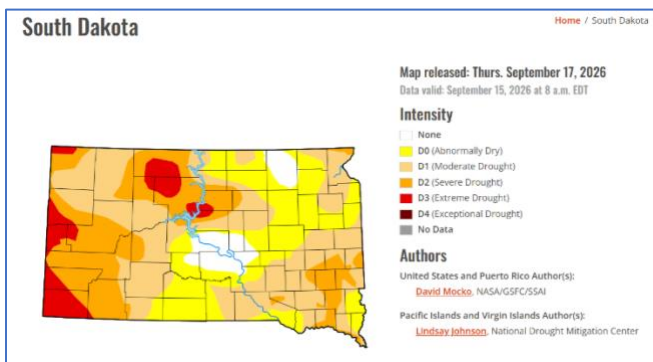
as chokeberry). The fruit can be used in jams, jellies, and baking.

Drought monitor

While the week's precipitation was widespread, it was still spotty. Some locations received three inches or more of rain, while others – often only five miles away – had only a few drops. This is part of the reason we have not moved the needle on drought intensity across the state. It has been hit or miss.

Only about 4% of the state is classified as drought free. It is down to Brown County and a donut hole in the center of the state – Stanley, Hughes, Lyman, Jones, Buffalo, and Hyde counties. About a third of the state is still classified as Severe or Extreme Drought.

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



Treatments to Start Now

Fall planting

Fall is a great time to plant trees and shrubs. This is especially true for planting container or balled-and-burlapped conifers. The combination of warm soil temperatures and cooler air temperatures promotes root growth while reducing water loss through transpiration.

We need at least four weeks of soil temperatures above 50oF before winter for transplanted conifers to recover from planting stress. Soil temperatures usually cross this threshold at the end of October or early November, so we have about another two weeks for planting.

There are also some trees that are best planted in the spring. They are prone to desiccation injury if planted in the fall, especially late fall. These are birch (*Betula*), larch (*Larix*), magnolia (*Magnolia*), and walnut (*Juglans*).

Also, a reminder – planting bare-root trees and shrubs in the fall is not a recommended practice. While this was done successfully in Michigan and other eastern states, our fall temperature fluctuation often desiccates the plants before they can develop a root system.

Timely Topics

Emerald ash borer update

The long, powder-filled galleries of emerald ash borers are visible beneath the bark of infested trees. There will be a flat cream-colored larva with bell-shaped segments at the end of these winding tunnels. Most of these EAB larvae are little less than inch long. These are the 3rd instars, the dominant stage of larva in mid-September.

There are a few more 4th instar larvae present now. These are about 1 ¼ inch long. They are the final larval stage. These larvae feed until mid-October when they begin to burrow in the sapwood to survive the winter.

Ash bark beetles, another common beetle in declining ash

Aaron, city forester for Aberdeen, and I were looking at thinning canopies in a row of ash trees. These same trees had some blanding near the tops which is an indication of woodpecker activity. Woodpeckers shred the outer layer of bark in their search for EAB larvae.

But squirrels in their scampering up and down ash trees will also shred the bark. The only way to tell which is responsible for the blanding is to collect a few canopy samples.

Once some branches were cut and dropped to the ground, it was clear that Rocky was at work. There were no woodpecker drills in the blanded wood.



There were beetles in the canopy, but they were ash bark beetles (*Hylesinus aculeatus*), not EAB. The exit holes were round and about the size of BBs. The holes were often lined up in a ring around smaller twigs. There were long egg galleries with numerous larval galleries at right angles. These are all signs of ash bark beetles.

These are insects that attack stressed trees. Drought or construction are common stresses that attract the beetles to the tree. There had been construction near

the trees a few years ago. This may have been the stress agent.



The treatment for ash bark beetles is to restore the tree's health. Bark beetles rarely successfully attack healthy ash. If ash bark beetles are found in a declining ash that does not mean the tree is free of EAB. Emerald ash borer can also serve as the stress to attract the bark beetles. I often find them inhabiting the same trees.

Forest health Zoom program on shrubs Wednesday

Please join us for the next Forest Health Zoom program - Wednesday, September 23 1:00-2:00 pm CDT – for a presentation on the top ornamental and windbreak shrubs for the Northern Plains.

Registration link: https://state-sd.zoom.us/meeting/register/LNdadSqKS_2db0PqUGkKrA

E-samples

Dutch elm disease in American elm

The first symptom of this fungal disease is yellowing leaves. These soon wilt and begin to fall. The symptoms are often confined to a single branch in the canopy but gradually spread to other branches by late summer. The entire tree will show wilting by the end of the season though the progress of the disease can take a year or two.

Three species of bark beetles (banded, native, and smaller elm bark beetles) carry the disease to the smaller branches in the tree. Once infection occurs, the fungus spreads through the tree including the roots. A healthy American elm growing within 40 feet of an infected tree can have the fungus transmitted via root grafts. Trees infected by root graft usually show symptoms in the spring. The yellowing and wilting occur throughout the canopy at once for root graft infections.

This infected tree should be removed as soon as possible this fall. The wood should be destroyed to prevent beetles from emerging next spring and carrying the disease to other American elms.



Cedar-apple rust on apple leaves

This is a picture of cedar apple rust (*Gymnosporangium juniperi-virginianae*) on apple leaves. The spores for this infection came from the horn-like fruiting bodies on cedars (*Juniperus*) this spring.

Now the infected apple and crabapple leaves have yellow to orange spots and halos on the upper sides of their leaves. There are corresponding orange-brown fringed spots on the lower surface of these leaves.



It is too late to control the disease on these infected trees. The next window for treating the disease on the apple and crabapple hosts is next spring.

Samples received/Site visits

Brown County, Lilac leaf spot, not herbicide

The stop was to look at some suspected herbicide on a young, five row windbreak. Only the outer row, which was planted to common lilac, was affected. This would be an unusual pattern for herbicide drift.



The symptoms were not herbicide but appear to be from a leaf spot disease. Two were common on lilac last year, pseudocercospora and septoria. These leaf spot diseases begin as brown spots starting at the margins and progressing to blotches and eventually defoliation.

These diseases require warm, humid conditions to flourish. It was wet in Brown County earlier this year. This is one of the few areas of the state that has escaped drought this year. It is also one of the few areas of the state where leaf spot diseases appeared this year. 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. The buds on the lilacs are plump and alive. The plants should recover next year.



Brown County, Tiny pears

The tree owner wanted to know why the fruit was so small on their pear tree. It was planted several years ago but this was the first year it produced fruit. They thought they had planted a Bartlett pear.

Bartlett pear is an excellent pear. It is one of the most popular cultivars. Bartlett pear is known for its dessert-quality fruit with its buttery texture. Unfortunately, it is not hardy to much of South Dakota.

This is one of the Callery pears (*Pyrus calleryana*). Many of the cultivars of Callery pear, such as Bradford, are also not hardy to our state. But there are a few that can be grown throughout eastern South Dakota and even into North Dakota.



These are sold as ornamental pears planted for their attractive flowers and fall foliage color. The fruit, however, is small, persistent, and inedible to humans (but the birds like them).

Many Callery pear cultivars have become invasive. They are choking out native trees and shrubs in forests in the Midwest and farther east by forming dense thickets. This is not likely to be a problem in South Dakota due to our cold winters eliminating most cultivars.

Day County, Apple woolly aphid

The woolly apple aphid (*Eriosoma lanigerum*) colonies appear as cottony masses on the underside of shoots. The colonies often form around old pruning wounds or scars where the aphids suck the sap from the shoots.



Inside the cottony masses during the summer, you can find small purple aphids. Cottony wax provides protection for aphids from heat and predators.

Some of the aphids crawl down from the shoot to infest the roots. This is where the aphids cause most of their injury to the apple tree. Root feeding can result in stunted growth and yellowing foliage.

The aphids in the cottony mass on the shoots are mostly gone now. They overwinter on the roots. Others form a fall winged generation that flies to elms. Here they lay eggs that will hatch next spring and return to the apple host. It is a complicated lifestyle!

Insecticide treatments can be used for control, but the best approach is to let their numerous natural enemies such as hover fly larvae, lacewing larvae, and, yes, even earwigs take care of the problem.

Kingsbury County, Update to mysterious decline of ash

This is a follow-up to the mystery of the decline to several ash in a yard in DeSmet (*Pest Alert* August 5, 2026). There was not much information on the trees, but we suspected herbicide as an agent.

Unfortunately, there is no universal testing for herbicides. We do not have a CSI lab so you can just drop a leaf into a machine and the answer appears. No report instantly appears telling you the herbicide that

was applied, the date and what the applicator had for lunch. It is not like on TV.

We have gone through the usual suspects including mesotrione as a possible active ingredient. All the tests have come back as not detected. Either the active ingredient degraded enough that it was not detectable, or herbicide is not the agent. We have a few more ideas, including some pathogens, that we are investigating, stay tune!

Marshall County, Chicken-of-the-woods fungus

These are the fruiting bodies of the sulfur yellow fungus (*Laetiporus sulphureus*). The fungus is also known as Chicken-of-the-Woods due to its flavor (but doesn't every new food taste like chicken?). The fungus appears as a layered, fan-shaped growth on declining trees.



The fungus is orange yellow on top and sulfur yellow beneath. The fruiting bodies appear in late summer. They disappear by winter as many animals (and people) like to eat them.

The appearance of the fruiting body is an indicator that the tree may be decayed. The fine, threadlike mycelium of the fungus cause brown rot as they digest the wood. Trees infected with this fungus are at a risk of failing though I have seen infected trees stand for decades.

Knocking the fruiting body off the tree does not eliminate the fungus. The bulk of the fungus is beneath the bark and living off the wood it is slowly rotting. Removing the fruiting bodies would be as useless as removing apples to kill the apple tree.

Final note: do not eat raw sulfur yellow fungi, it must be cooked. Also do not harvest any fungus for food that you cannot identify or base your identification on a brief description of the fruiting body! Go out with an experienced mushroom hunter.