

Pest Update (August 12, 2013)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent from any location – please provide a picture!**

Available on the net at:

<http://sdda.sd.gov/conservation-forestry/tree-pest-alerts/>

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 inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular 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 product identified in this publication.

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Timely Topics



Plant development. The Ural false spireas are in full bloom in Brookings, a sign that we are approaching the end of summer. These are large, but attractive and almost indestructible plants that bloom from now until late October.



Verticillium wilt is beginning to appear in catalpas in the eastern end of the state. The disease, *Verticillium*, causes yellowing and wilting of foliage that often progresses to branch dieback and sometimes the entire tree dies. The disease infects more than 200 different woody and herbaceous species but in our region is most typically found on ash, maples, catalpa and elms. Symptoms of the disease, in addition to the aforementioned, also includes dark streaking of the sapwood, though this symptoms is often not present in early stages of the disease nor is it present in ash. The disease is soil-borne and once taken up into the tree it will cause dieback of the branches beyond the infection so an infected tree may have several or more branches with a

few leaves near their base and the remainder wilted. Sometimes the disease is limited to a single branch or two and other times the entire tree will wilt and die. There is no effective treatment for the disease and it can remain in the soil for decades so the best advice is to remove trees that have died from the disease and replant with species resistant to the disease such as hackberry, honeylocust, aspen, crabapples or conifers. The symptoms for this disease can also be caused by a number of other pathogens and disorders so it is always best to send a sample in to verify the disease.



The cedar bark beetle adults are emerging throughout the state. There are several species of cedar bark beetles that attack junipers, both eastern redcedar and Rocky Mountain juniper and while there are different species of these bark beetles, they all share the same genus *Phloeosinus* so have similar characteristics. The adults are reddish brown to black and about 1/8-inch long. They emerge from equally

small holes that occur along the limbs and trunks of junipers. I am seeing a lot of these insects this year since dying cedar windbreaks are a common sight across the state. Remember, these insects usually attack only stressed or dying trees so rarely are the primary cause of any decline. The bigger problem with these

trees was the long-term drought that fortunately ended in much of the state this year.

E-samples



I am receiving pictures and samples of basswood and linden leaves. This is a common occurrence at this time of year and there are several possible reasons for the discoloration and premature falling of these leaves. However, one of the most common is a disease called **linden leaf blotch**. The blotches begin in late summer, often as small specks that expand to larger blotches. A characteristic of the dark brown blotches is the feathery margins. The disease can result in complete defoliation of the tree by mid-September. There really is no control other than remove and destroy the fallen leaves, often impractical, and if the spring is relatively dry the disease is often minor and only results in some leaf discoloration.

Cytospora canker, often associated with blue spruce, is a common problem on a number of other trees and shrubs. It is primarily a secondary stressor, only exhibiting symptoms when drought, winter injury or other abiotic agents have already predisposed the tree. The severe 2011-2012 drought has been a major stress to trees across the state and this has become the 'trigger' for cytospora canker on a number of species, primarily blue spruce and many stone fruits.



The disease commonly appears as bluish-white resin blisters on dead and declining branches of blue spruce, is also appearing on stone fruits, chokecherries, plums and apricots. Stone fruit symptoms include the oozing of gum from the infected trunk. Dave, a forester for the South Dakota Department of Agriculture sent this picture of an infected chokecherry tree and there have been numerous reports and samples of the disease from central and western South Dakota on this species as well as other stone fruits. Typically the branches beyond the canker have wilting and dying leaves. Unfortunately there is no control for the disease other than reducing the

primary stress agent – watering in the case of drought – and sanitation pruning by removing infected branches or even cutting out the cankers (very time consuming!). If the disease has already moved to the trunk there is little that can be done.

Frogeye leaf spot is showing up on apple trees (and crabapples) in the southern



part of the state. The most common symptoms for this disease are concentric patterns of light brown to tan irregular circles appearing on the upper leaf surface. There will be tiny black dots in the center of these circles and these are the fruiting structures. The disease alone is not a threat to the tree; just discoloration of the leaves, but this is often associated with black rot, a serious canker disease that can result in branch dieback. Apple trees with leaves

exhibiting these symptoms should be examined for small dark cankers on branches and if found, these infected branches should be removed.

Samples received

Brookings County

spots to appear on my maple leaves?

What is causing the hard, black

This is the disease tar spot which was discussed in the last issue of the *Pest Update*.

Custer County

and curling on the tips of the spruce twigs?

What is causing this growth

This is the work of the cooley spruce gall adelgid. This is a closely related insect of aphids and they live in colonies within these galls that are often referred to as “pineapple” shaped but they do not look like any pineapple I have ever seen! The elongated galls occur on the terminals of the new shoots often causing twisting. While these insects and their galls will not kill the tree, they can result in minor twig dieback. The management of the problem is generally either ignore them or just prune out and destroy the galls as they are forming in the spring. The gall adelgid can alternate its life cycle to move from spruce to Douglas-fir and back but in regions such as the Black Hills where Douglas-firs are few and far between, the adelgid is content to just stay on the spruce.

Perkins County

that appear to be infested with spider mites.

These are a couple of spruce

You are correct and it appears that there was a significant population feeding on these trees the past spring. You might want to consider treatment this autumn and while we are experiencing some cooler weather so a few mites are active, it is probably best to wait until the maples start to color in September to initiate control. Remember you’ll need a pesticide containing tau-fluvalinate as an active ingredient if the tree owner wants to spray; commercial applicators have more possibilities for treatment.

Roberts County

mulberry samples, but no note.

A collection of pine and

The pine appears to be showing a little tip browning, not unusual considering the weather the past two years. I did not see any signs of a disease problem with them. There was nothing wrong with the mulberry and perhaps identification was the only question.