

Pest Update (Sept 3, 2008)

Vol. 6, no. 27

John Ball, Forest Health Specialist, Extension Forester

Email: john_ball@sdstate.edu

Phone: 605-688-4737

Samples sent to: John Ball
Horticulture, Forestry, Landscape and Parks
Rm 201, Northern Plains Biostress Lab
North Campus Lane
South Dakota State University
Brookings, SD 57007-0996

Available on the net at:

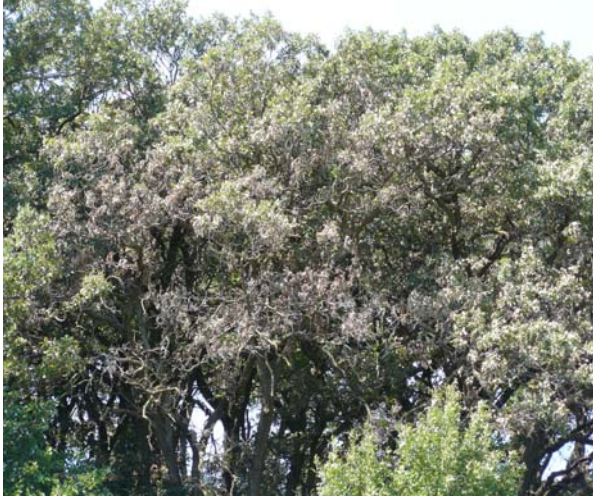
<http://www.state.sd.us/doa/Forestry/educational-information/Pest-Alert-Archives.htm>.

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.

In this issue	pg
E-samples	
Oak decline and foliage discoloration.....	1
Tar spot on maples.....	2
Samples received	
Brown County, Ash and Spruce problems.....	3
Campbell County, Fireblight.....	3
Faulk County, Herbicide.....	3
Hand County, Walnut identification.....	3
Lake County, Ash anthracnose.....	3
McPherson County, Viburnum dieback.....	4
Mellette County, Tar spot.....	4
Todd County, Cedar dieback.....	4
Turner County, Spider mites.....	4
Yankton County, Ash decline.....	5

E-samples

The common samples, both physical and e-samples, for this week was in regard to oak wilt. This is a common and fatal disease of red oaks (northern red oak, eastern pin oak) in the Midwestern region of the United States from Minnesota to Texas and east to Ohio and North Carolina. The disease also can be a serious problem on the white oaks



(swamp white oak and bur oak) but these trees often survive the infection. Red oaks generally die within a year of infection and I have seen them die within six weeks of the first symptoms appearing. The symptoms begin as bronzing or tanning leaves, often the discoloration confined to the margins, with the leaves eventually curling. The veins also become discolored, usually a yellow. The white oaks may show similar symptoms but the discoloration is often confined to only a part of the tree, or even a single branch.

Oak wilt is a very, very rare disease in South Dakota. The western range of the disease slows around the Mankato, New Ulm area of Minnesota. However, occasionally we do have a confirmed infection in Minnehaha County, but the disease dies out rather than the tree. What most people think is oak wilt is usually oak anthracnose, and this is a common disease in our state.

There are a few differences between the two fungal diseases. Oak wilt symptoms appear in the spring or early summer while oak anthracnose symptoms appear in late summer. Oak wilt symptoms are discolored and curling leaves while for oak anthracnose the leaves have irregular brown areas and the leaves are sometimes distorted (though not curled). Brown to black dots on the leaves are the fruiting bodies of the anthracnose disease, these dots will not appear on leaves of trees infected with oak wilt.

Oak anthracnose is not the only problem we see with oak trees in South Dakota. Discoloration of the leaves and premature defoliation can be attributed to a number of other stressors including oak lace bug, basswood thrip, and pine-oak rust. We are also seeing a lot of dieback on oaks due to infestations by the twolined chestnut borer.



I am still receiving samples of tar spot. This is the fungal disease of maples, particularly red and silver maples, that has been reported in past *Updates*. The spots on the infected leaves are usually very hard and near black so the common name tar spot certainly fits. The disease is not as much of a problem as it was last year.

Samples received

Brown County (Extension)

What is causing these bumps on the ash?

Believe it or not, this is ash rust! The disease was so severe this year that many trees, particularly young trees, had their new shoots infected with the disease that normally only infects the leaves. Hopefully we will not see this severe of a problem next year but some of these infected shoot may die.

Brown County (Extension)

These are some discolored inner needles from a blue spruce. What might be the problem?

Some of the dislodged needles are due to spruce needleminer. The discolored needles are most likely due to spruce spider mites. I was able to find a number on the sample as well as evidence – frass and webbing – to indicate there were quite a few on the tree this last spring. I would suggest treating the tree this fall for the mites. Most of our chemicals available to homeowners, acephate, soaps and oils, are not as effective as the materials that commercial applicators can use and this is one pest, particularly on large trees, that it is best to hire the work done.

Campbell County (Extension)

Is this fireblight on the apple tree?

Yes, this is a common disease of apple, though not as prevalent as apple scab. The only real control is to prune out infected shoots, at least several inches below the symptoms, shriveled and darkened bark, and at the junction between the infected shoot and the trunk.

Faulk County (Extension)

What is wrong with this ash tree? The leaves appeared bunched and stunted.

These symptoms, epicormic shoots that contain stunted leaves, are common with two stressor, the disease ash yellows and herbicides such as picloram. Generally the stunted leaves on ash infected with ash yellows are also simple leaves rather than the more typical compound leaves. Since these are the compound leaves, and the stunted shoot more resemble damage from herbicide I'd say someone applied an herbicide containing picloram, Tordon and Grazon are two possibilities, on or near the tree.

Hand County (Extension)

What kind of nut did Vince bring in?

This is the fruit, husk and nut, to the black walnut (*Juglans nigra*). Most likely it was a gift from a squirrel as these small rodents frequently bury walnuts that they carry from other yards. If he has several and wants to plant them, the directions are in the last issue of the *Update*.

Lake County (Extension)

What is wrong with Colleen's ash tree? The leaves are turning brown on the margins and there is some distortion.

This is the fungal disease ash anthracnose. This is usually the most common disease we see on ash but this year the other fungal disease, ash rust, was far more prevalent so I have seen very few anthracnose samples. Ash anthracnose is a disease that we rarely recommend controlling as it usually does not occur on the same tree each year, at least with the same intensity, and the tree can often easily recover from the stress.

McPherson County (Extension)

These shrub samples were taken from a church in Eureka. They suspect herbicide but none of the surrounding flowers or other plants are showing symptoms.

It is unlikely to be herbicide but we can test for it if necessary. The two problems I did find on these cranberrybush viburnums, aphids and anthracnose. I also suspect there is a third problem, but it would be further down the stem and not in the sample and that is borer. The aphids were responsible for the distorted and shriveled leaves on the tips of the branches and the browning leaves had anthracnose so these are some much stressed plants! It is too late in the year to control either problem and most likely the only one that will appear again next year is the aphids. These can be easily controlled with any number of insecticides next year; Ortho Systemic Insect Killer (acephate) is a good choice if applied in early summer before the problem gets too big. The best means to control the borer is to destroy, cut off and burn, any affected shoots.

Mellette County (Extension)

What is wrong with Lois's maple tree? The leaves do not look good.

You're right! The black, tar-like spots are due to the fungal disease called tar spot. See previous Updates for more information on the disease and its control but generally we do not treat for this disease as it rarely reappears on the tree year after year. Any copper fungicide can be used for control in the spring, apply at bud-break and repeat two more times three weeks apart.

Todd County (Conservation District)

What might be wrong with these cedars? Some started out green this spring but then rapidly declined.

The symptom pattern, dying interior branches, is common with cercospora blight, one of the three fungi responsible for juniper blight. The symptoms associated with infection by cercospora are the oldest, interior needles turning bronze or red, then gray. Oftentimes infected trees will have only a few tufts of green foliage at the tips and sometimes these will die. The other two fungi associated with juniper blight, Phomopsis and Kabatina; generally affect the shoot tips and the interior remains green. I am *guessing* that cercospora may be the stressor on these trees based on the pictures sent in, not the sample. The sample was from tips where I would not expect to find signs of this pathogen, nor was I able to find either of the other two. Dieback of cedars has also been associated with a number of other stressors ranging from cedar bark beetles (look for small holes, about the size of a pencil-point on the trunk) to being girdled by the fabric (check to see if the fabric is imbedded in the trunks). I may have to stop and look at these plants when I swing through your area later in September.

Turner County (Extension)

What might be on Dean's tree?

These are spruce spider mites. We are coming into the time to control these mites as they are cool season mites and are only active when the temperatures are below 85°F. Treatment is sprays of insecticidal soap, horticultural oils (but both of these will turn a blue spruce green!) or an insecticide containing the active ingredient acephate. All these will require two treatments spaced about 10 days apart. Commercial applicators have far more effective chemicals to use and I often recommend this treatment be conducted by them rather than the homeowner.

Yankton County (Extension)

What might be the problem on this declining ash tree? Overwatering, underwatering, scorch, environmental???

Most likely the browning is due to an abiotic stressor as no signs of any insect or pathogen. The symptom pattern of discoloration is similar to what occurs with watering problems, either too much or too little.