

# Pest Update (October 5-12, 2016)

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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.

## Available on the net at:

<http://sdda.sd.gov/conservation-forestry/forest-health/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 products identified in this publication.

## Timely Topics

Acorn flour.....	1
Multicolored Asian lady beetles.....	1

## E-samples

Bleeding canker on cottonwood.....	3
Spruce gall midge.....	4

## Samples received / site visits

Clark County (Cercospora blight on juniper).....	4
Day County (planting shock).....	5
Fall River County (mulberry problems).....	5
Grant County (apple identification).....	5
Lincoln County MN (honeysuckle blight/ possible herbicide drift).....	6
Lincoln County SD (normal needle loss on spruce).....	6
Minnehaha County (pine wilt).....	7
Union County (bur oak blight).....	7

## Timely Topics

**What about eating acorns?** After last week's article on planting acorns, I received an email asking about eating them. Acorns were once the staple in many peoples diet hundreds of years ago. They are highly nutritious and I am surprised we don't have commercial growers selling acorn flour. The nuts are about 10 to 30 percent fat (the healthy fat), 5 to 10 percent protein and high in Vitamin B6 along with trace elements.



Acorns should not be eaten raw, the tannins can give you a tummy-ache as well as interfere with absorption of other nutrients. To make acorns into flour, go out and fight the squirrels for some recently fallen nuts. Discard any nuts with holes in them. Dump the remaining nuts in water and discard any that float. The remaining nuts should be dried in the sun (a south-facing window is perfect). Once dry, crack the acorns and

remove the nut and grind them to a coarse powder. Next place the powder in a container and add cold water. Let the powder settle and then strain out the powder. Repeat this several times a day for at least three days. This will remove the tannins. Once this task is completed, the powder should have a bland, not a bitter, taste. The powder can be dried, stored in the refrigerator and used as a flour. Usually this is mixed 1 part acorn to 3 parts wheat flour.

The **multicolored Asian lady beetles** (*Harmonia axyrida*) are on the move again this year. These bright orange-red to red beetles are between ¼-inch and 1/3-inch long. They have several or more black dots on the wing covers so just appear as any other lady beetle, except a little larger. The best means of separating this lady beetle from others is the large M marking between the head and the wing covers.



Most of my calls about these insects in the last week has been that people are finding them on and in the apples they are picking from their trees. These insects are attracted to overripe fruit that is already damaged and are merely taking advantage of the entry points. The best solution is frequent harvest and also disposal of any fallen fruit. Spraying is not an option.

If that was not enough of an annoyance, people will be soon noticing these lady beetles on the ceilings in their kitchens and other rooms, particularly sunny rooms. Not only are they a nuisance due to the large number that can be found in a home, they can bite! The bites do not draw blood, nor do they carry any disease, but it is another annoyance. Finally if you smack one you'll find it gives off a yellow-orange fluid (its blood) that has a foul odor and stains surfaces. And if that is not enough, a few people have allergic reactions from contact with the beetles. Not the best house guests.

No one is quite sure what triggers the mass migration of these beetles from field to homes, but their aggregation to buildings is most likely related to the shorter day lengths, a drop in temperature (40-50°F) followed by warmer (60-70°F) days and a reduction in food availability. Typically the lady beetles begin moving sometime in early October. Keeping the beetles out of the house requires several different strategies but they all must be done before the beetles start moving in. First, seal as many opening into the house as possible, this means around doors and windows, fascia board and vents and any other opening more than 1/8-inch or larger.

The second treatment is to apply an insecticide around doors, windows, and rooflines. The insecticides used for making a barrier contain bifenthrin, lambda cyhalothrin or permethrin as active ingredients and are labelled for this use. Do not apply the insecticide to the landscape as beetles can travel long distances to houses and do not necessarily land on nearby trees and shrubs before reaching the house. Remember the strategies focus on keeping them out of the house, once they are in you now have winter guests that will not leave (like relatives).

The multicolored Asian lady beetles were introduced into this country from Russia, Japan and Korea beginning in 1916 with most introductions in the 1960s and 1970s. They were brought over as they are efficient aphids feeders, better than our native lady beetles, and in our region are important controls for the soybean aphid and the cornleaf aphid.

## E-samples



**Bleeding cankers** are a common occurrence on stressed cottonwoods and willows. The bleeding typically starts in the bark crevices and a dark brown to black liquid oozes from these spots. If you put your nose up to the liquid it will have a very foul odor. It is not wetwood, another disease that results in a smelly liquid oozing from the tree. One difference is that wetwood typically oozes from old pruning wounds and cracks in branch unions. The ooze from wetwood will also bleach the bark where the liquid runs down the trunk.

Bleeding cankers occur along the trunk, not at pruning wounds, and the dipping liquid does not bleach the bark. There is not a single pathogen responsible for bleeding cankers. There are several fungi associated with these symptoms.

There is nothing that can be done for this disease. It sometimes only appears for a couple of years after the stress then stops as the tree regains its health. The symptoms on this tree did not appear until after Atlas, the snow storm that occurred almost two years ago in the western part of the state. The tree had extensive damage from the storm and was severely pruned afterwards.



**Spruce gall midge**, *Mayetiola piceae*, is a pest, one of the few, that appears on white spruce (Black Hills spruce is a geographical variety of white spruce) in South Dakota. I received this picture from Sam at Arboricultural Solutions in Sioux Falls. The galls appear as swellings along the current year shoots. The larvae responsible for the galls overwinter in these shoots, becoming pupae in the spring and emerging as adults in

May. The adults (which look like tiny mosquitoes) lay their eggs on the expanding shoots. Once hatched, the larvae feed at the base of the needles and the shoots form a gall around them.

White spruce can be treated with insecticides containing acephate or carbaryl as the active ingredient during late May to kill the emerging larvae. Generally treatments are not necessary. While affected shoot become deformed and may lost their needles and die. Usually the attacks are limited to only a small minority of the twigs and is not repeated the following year.



### Samples received/site visits

I opened my office door one night after a few days of travel and almost stepped over a “body bag.” Fortunately there was not a killer clown inside but a complete shrub.

Clark County

### What is killing these redcedar seedlings?

The first thing I noticed was the planting depth. I was able to scarp soil from the lower needles and along the stems higher than this foliage. It appears these seedlings were planted a little deep. This may not kill the seedlings, but it is a stress and leaves the plants vulnerable to pathogens.



The pathogen in this instance is *Passalora sequoiae* (syn. *Cercospora sequoiae*). This disease, Cercospora blight, can occur on seedling junipers as well as mature plants. Damage to seedlings in a windbreak can range from very light to almost a complete loss. The disease is similar to Phomopsis blight but the pattern is from the interior foliage out, rather than in as occurs with Phomopsis. If this is occurring in several belts it is worth a trip up to determine whether the source is from the nursery stock or infected trees nearby.

Day County                    **This tree was transplanted by a tree spade last year. There were several trees planted and this is the only one that is declining.**



The problem here is planting shock, often referred to as transplant shock. The current year's shoots and needles are extremely stunted as were the year before. This indicates a root disorder, not an insect or pathogen, as the agent. The most likely cause in this instance is planting. Why this one is suffering and not the rest cannot be determined from the sample. I may have to schedule a site visit to determine the reason for the decline.

Fall River

**Why is this mulberry so stunted?**



This is unusual. We do not see a lot of problems with mulberry. This one apparently grows about a foot or two every year, but dies back to the ground each winter. The first thought is the site but mulberry is very tolerant of saline and alkaline soils. The two possibilities are the soil is poorly drained, mulberry will not tolerate wet roots, or these mulberries are not hardy to the site. Mulberry is winter-hardy to much of the state, but

we still see instances of winter dieback in some locations.

Grant County

**What is this apple variety? It is from my neighbor's tree.**



Apple variety identification is really an educated guess as there are many different varieties that share similar characteristics, e.g. color, stripes, skin texture, shape, that it can be hard to narrow down to one. This apple, based upon its characteristics and time of ripening appears to be a 'Sweet Sixteen' and even the taste (I bit into one of them) was a tart, almost cherry-like flavor.

Lincoln County (MN)

**Is this glyphosate injury on these honeysuckles?  
The owner is claiming the neighbor sprayed them.**



The first step, which was done, was submit a timely sample to a lab for testing to determine if glyphosate is present in the foliage. The presences of the herbicide does not necessarily prove the neighbor is at fault (it can drift in from another field) but the absence of the chemical is a good indicator that the herbicide is not the problem.

The second step is to see if the symptoms presented by the plants are consistent with those associated with drift. The foliage on the sample is not yellowing, a common symptom of glyphosate drift. This instead looks like honeysuckle blight caused by the pathogen *Insolibasidium deformans*. The symptoms of this disease is the leaf tissue becoming tan to brown with necrotic spots. The infected leaves also become rolled and twisted. We will be testing further for this and await what the lab finds for herbicide.

Lincoln County (SD)

**The needles on my white spruce are turning yellow.**



This has become a frequent call this past week so Rick, one of the urban and community foresters for the state, and I met with a homeowner near Harrisburg on Friday. The trees were in a double row, each tree about 15 feet tall, and were just about picture perfect. The shoot growth and needle length was also normal. The problem? The interior needles were turning a yellow-brown to yellow. This is a normal condition for spruce at this time of year. They typically are shedding their five to seven year old needles and these are back a ways into the canopy. The trees also has some spruce spider mite activity, but this was secondary to the normal needle drop. The real problem is a few years away as these trees are just about touching. Once the trees are growing into one another, the lower branches become shaded out and decline. Eventually the lower canopy, about the lower six feet or so become bare and the privacy afforded by the trees is lost. I like these trees spaced at least 16 feet apart and 24 feet is even better.

Minnehaha County

**Is this pine wilt disease and are these the beetles that carry the disease from tree to tree?**



The problem is pine wilt. Unfortunately, this is becoming more common on Austrian and Scotch pines in the Sioux Falls area, even farther north. The insects in the bag were mostly chafers. While these are plant feeders, they are not borers (generally root or leaf feeders) nor carry the nematode. There was one borer in the bag, but this was a click beetle and it does not serve as a vector.

Union County

**Does this tree have bur oak blight (BOB)?**

Yes, we were able to find the pathogen *Tubakia iowensis* in the sample. This is becoming a very common disease in eastern South Dakota all the way up the I-29 corridor. It has become a major problem in native bur oaks stands along the woody draws in the Sioux Falls area and in the native trees that dot the landscape in many communities. The symptoms of this disease, wedge-shape necrotic blotches in the leaves as well as purple lesions along the midrib, are very common right now. Infected trees will often have these leaves remain hanging for most of the winter. The disease can be managed with trunk-injections of the fungicide propiconazole (Alamo formulation) in late May or early June (prior to leaf symptoms but after full leaf expansion).

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