Pest Update (August 3, 2016)

Vol. 14, no. 26

John Ball, Forest Health Specialist SD Department of Agriculture, Extension Forester SD Cooperative Extension

Email: john.ball@sdstate.edu

Phone: office 605-688-4737, cell 605-695-2503

Samples sent to: John Ball

Plant Science Department

rm 230, Agricultural Hall, Box 2207A

South Dakota State University Brookings, SD 57007-0996

Note: samples containing living tissue may only be accepted from South Dakota. Please do <u>not</u> 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.

Plant development	2
Timely Topics	
Urban Wood Utilization workshops coming soon	2
May I eat these fruits?	2
E-samples	
Black blister beetles	4
Groundcherries	4
Peat scab	4
Walnut caterpillar	
Willow scab	5
Samples received / site visits	
Merrick County NE (powdery mildew on lilac)	5
Minnehaha County (marssonina blight on aspen)	
Minnehaha County (fireblight)	6
Minnehaha County (stem girdling roots)	
Minnehaha County (spruce needlecast disease)	
Spink County (frost injury to spruce)	

Plant development

We are still ahead of last year and most years. All of our mid to late summer flowering shrubs are in bloom and we are seeing many woody plants such as chokecherries with already ripened fruit.

Timely topics



The wood utilization workshops are coming up this Saturday morning, August 6 in Rapid City and repeated in Brookings on Tuesday evening August 9th. The workshop "You should see what we saw" will include demonstrations of portable mills, and discussion of CNC machines, and solar kilns among others. The objective of these workshops is to show the potential value of wood in South Dakota and the value of turning our overmature or infested

trees into valuable wood products. Discussions and demonstrations will cover how logs are scaled (measured,) the economics of setting up a mill, the drying process and maintaining blades. Participants will be able to examine and watch a portable mill operation. The workshops will also address how to utilize wood infested with insects and diseases to avoid further spread of these pests.

The Saturday, August 6th, workshop is from 9:30 to noon at the City Maintenance Yard, 2919 Canyon Lake Drive, Rapid City, SD. The second workshop will be held Tuesday, August 9th from 6:30 to 9:00 pm at McCrory Gardens, 631 22nd Ave, Brookings, SD. There is no charge to attend.



"Can I eat this fruit?" is a common question right now. Wrong question. Sure you can eat it, the important question is should you! Seems South Dakotan are out trying to make jam out of fruit they are collecting. The two questions; what is it and can I eat the berries? So let's look at a few. The first is the Tatarian honeysuckle (Lonicera tatarica) and it can be easily identified by its opposite, ovate leaves that have a slight bluish-green color. The fruit is an

orange-red berry, usually found in clusters of two's, and occur at the axils of the leaves rather than on the terminal of the shoots. The plant, a native of Central Asia, was widely planted as a tough windbreak shrub and has become even more widely disseminated by the birds as they carry the seeds. The shrub has

lost its value as a windbreak plant due to the introduction of the honeysuckle aphid in the early 1980s. This insect is responsible for the witches-brooming common seen on the tips of affected shrubs. The fruit is widely regarded as poisonous to humans, though there is not much documentation regarding this fact. Vomiting and abdominal pains are often given as the symptoms following eating the fruit. Europe is where most of the information on toxicity comes from, but no sense tempting fate and I would suggest avoid eating this fruit fresh or in jams or jellies. Interestingly, one paper from the United States points out a study where the fruit was found to be poisonous to rabbits so it's not all bad news.



What about common chokecherry (*Prunus virginiana*). The fruit to chokecherry is edible, in fact in 2007 it was voted the state fruit of North Dakota (South Dakota does not have a state fruit, let's get on it!). The fruit was also highly prized, and still is, by the native nations. *Capa sapa wi*, "black cherry moon" is the name the Lakota gave to the month of August, the time when the fruit ripens. The Lakota would grind the fruit, pit and flesh together, into cakes

and dry them in the sun. This can be mixed with dried meat to form pemmican. The fruit can also be made into jams and jellies. Some folks with few taste buds can even eat them right off the tree but they do not get the name chokecherry for nothing!



Common chokecherry trees can sometimes be confused with common buckthorn and this is a serious mistake if you are planning on picking the fruit. While common chokecherry fruit is edible, common buckthorn (Rhamnus cathartica) is not and works as a very, very powerful laxative. The way to separate the two is chokecherry leaves are arranged alternately along the twig while common buckthorn (As seen in the picture to the

left). The orange patches are from a rust disease) are sub-opposite, where a leaf is almost opposite another leaf on the twig. The margin or edge to buckthorn leaves usually have rounded teeth while the chokecherry has sharp teeth. Common buckthorn also has a single thorn at the tip of each branch. The fruit differs in that chokecherry dark purple to black fruit is about 1/3 inch in diameter and contains a single large seed while buckthorn's glossy black fruit is about 1/4 inch in diameter and contains two to four small seeds.

E-samples



Black blister beetle (Epicauta pennsylvanica) picture was sent in from Kadoka last week. These beetles are about 1-inch long with a long, cylindrical They also have long black body. legs and antennae. The name blister beetle comes from the toxin cantharidin that the beetles exude from their leg ioints when disturbed. This toxin can result in skin blisters. The insect in the larval stage is beneficial, feeding on grasshopper pods (and egg

unfortunately the larvae of the solitary bee) but in the summer the adults can become a problem on legumes. The adults are common in alfalfa fields and also can be found defoliating honeylocust trees and Siberian peashrubs. While the defoliation can be a concern, the greater concern is the toxicity of the crushed adults in alfalfa bales. The adults tend to congregate so you might find 100 or so crushed adults in a flake and none in the rest of the small bale. If a horse is fed the flake, it might ingest several hundred of these insects. It takes about 350 to 500 to kill a horse.



Groundcherry (*Physalis*) was an identification e-sample this week. There are several groundcherry species found in the state. The smooth groundcherry (*P. subglabrata*) is the more common, but there is also the clammy (*P. heterophylla*) and Virginia (*P. virginiana*). Groundcherries have an interesting fruit, a round, berry-like,

yellow fruit enclosed in a papery calyx. The cooked, ripened fruit is considered edible. Note the terms, cooked, ripened and considered, before deciding to make a pie from this fruit. Unripen (green) or raw fruit is poisonous.



Pear scab is showing up across the state. The disease caused by the pathogen Venturia pyrina is related to the similar disease that occurs on apples known as apple scab. Pear scab results in the infected leaves developing a blackened margin, sometimes covering most of the leaf. These leaves will hang for a short time then fall. There will also be lesions on the twigs and

the fruit. The symptoms differ from fireblight

in that the blackened leaves will still be moist to the touch while the leaves on blighted branches will often be curled, shriveled and dry.



Walnut caterpillar (Datana integerrima) is an unusual insect in South Dakota but we do see them from time to time. The full-grown larvae are about 2 inches long, black with thin yellow strips and the body is covered with long dirty-white hairs. The adults are out in the spring and early summer with the eggs deposited on the undersides of leaves. The eggs hatch and the larvae feed in masses on the foliage. Now they are dropping to the ground to look for a site for

pupation. There is one-generation per year in South Dakota but farther south there can be two. The larvae feed on walnuts and hickories (including pecan) and if a tree is defoliated for two years in a row, the stress can result in dieback and decline. Fortunately this pest is often a one-year phenomena, appearing in large numbers one year and not seeing them again (at least in large numbers) for a decade or more. This appears to be a 'bad' year with some tree being completely defoliated and the ground (as in the picture) covered in frass.



I have received number pictures and questions regarding willow scab (Venturia saliciperda). This is a very common foliage disease that appears in late summer on willow trees across the state. The disease is closely related to apple and pear scab and the typical symptoms are discolored and falling leaves as well as tip dieback. This disease has similar symptoms to black canker (Glomerella miyabeana), a willow twig disease that can

also cause the leaves to wilt and the shoot tips to die back. The two diseases are difficult to separate, but the willow scab infected leaves will usually have "tufts" of spores on the underside of the leaf, generally along the mid-vein. Separating them is not all that critical as these two diseases often occur together and the disease is simply called willow blight. There two disease are common problems when the spring weather is moist, a condition typically of much of the state this year.

Samples received/site visits

Merrick County, Nebraska FL1600038 These lilacs have misshaped leaves. They are near an ag field so please test for herbicide.



Herbicide testing is best done through your state's Department of Agriculture if the concern is drift injury. However, the foliage does not present the typical symptoms of our common herbicides. Instead the leaves are covered in powdery mildew. This is a common disease of lilacs particularly during humid summers. The disease symptoms include white talcum powder-

like patches on the leaf surface but the leaves can also become twisted and distorted. The difference is with most herbicides the petiole will be twisted as well.

Minnehaha County FL160036 aspen tuning brown?

What are the leaves on these quaking



This appears to be marssonina blight (*Marssonina populi*). This is a common foliage disease of poplars and aspen and shows up when we have a wet spring. The disease results in leaves developing spots which later emerge to form blotches. The twigs may also become discolored. The disease is usually more an aesthetic issue than a serious threat to the tree's

health. Fungicides applied as the buds begin to open may be used to reduce the appearance of the disease, but unless we have the right weather conditions (warm and wet) we usually do not see the problem develop.

Minnehaha County FL1600037 The two ornamental crabapples began dying this year. We fertilized the trees and poured an insecticide around them.

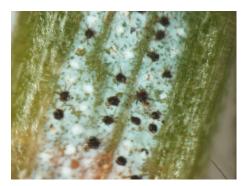
The sample only contained a piece of bark so not enough to determine the causal agent for the dieback. However, from the pictures it looks like fireblight. We would need a better sample to be certain but regardless of its cause the tree should have these dead and dying limbs cut back to the trunk. The pruning should be done during dry weather and disinfect the pruning saw between cut with Lysol disinfectant or a 1:10 bleach: water solution.

Minnehaha County FL1600039 This Autumn Blaze maple is beginning to turn color. Why and what should I do?

First, the sample had both lecanium and cottony maple scales on the shoot. These are sap-sucking insects and on small trees they can extract significant sap resulting in leaves turning color prematurely and even some shoot dieback. Treat with insecticidal soap mid-June next year with a second application 10 days later. Maples can be sensitive to soap so do not over-apply.

However, this is not the only problem. The tree looks to be planted a little too deep as the trunk is going straight into the ground, rather than flaring out. This may be causing a stem-girdling root and this can also result in premature fall color. Unfortunately the girdling often causes the tree to die within a few years. I would wait until next summer to see if the premature color occurs again. If so it may be the girdling roots.

Minnehaha County FL1600033



Spink County FL1600035



What is wrong with these spruce?

There appears to be two problems, spruce spider mites and spruce needlecast disease. The more serious of the two is the needlecast. This is Stigmina needlecast (*Stigmina lautii*), a fungal disease. The treatment is a fungicide containing the active ingredient chlorothalonil applied when the new growth begins to expand then every 10-days through August. Treat the entire canopy, not just the lower branches.

What is wrong with these spruce?

This appears to be the frost injury that was discussed in last week's *Update*. These is the possibility that it is herbicide and the state is testing the windbreak trees for this possibility.

The South Dakota Department of Agriculture and South Dakota State University are recipients of Federal funds. In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability (Not all prohibited bases apply to all programs.) To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

This publication made possible through a grant from the USDA Forest Service.