

Pest Update (September 18-25, 2013)

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

Email: john.ball@sdsu.edu

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

Samples sent to: John Ball
Plant Science Department
rm 230, Agriculture 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 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

Emerald ash borer has been found in Colorado. A report made public on Friday confirms that this borer is in the Boulder, Colorado area. This is the farthest west the insect has been discovered in the United States. Since the previous farthest west record was in Kansas City, Kansas, the new concern is whether the insect exists between the two locations, somewhere in Kansas, Nebraska or South Dakota. Since a primary vector for this insect is firewood, and the largest infestations are in the upper Midwest, there is the possibility of more spots being discovered on the Great Plains if some camper or campers scattered firewood along this route while vacationing some years ago. Next late winter the South Dakota First Detector program will be conducting volunteer training on the identification of these insect and other potential threats to our trees. I am certain this discovery of emerald ash borer on the other side of “fly over land” will spark renewed interest in monitoring our trees for these pests.



I am beginning to receive calls about yellowing foliage on pines, arborvitae and junipers. If you notice the three-year old needles on a pine turning yellow at this time of year, don't worry its normal. Evergreen does not mean “forever green” and pines shed their older needles at this time of year. Spruces do this as well but for them it is the five- to seven-year old needles that are shed and the color change is not nearly as noticeable. Junipers and

arborvitae also go through a color change at this time of year but the loss appears more as strips or ribbons running through the shrub rather than only the interior scales becoming yellow.



The first annual wood utilization workshop is coming up on Saturday, October 12 in Brookings South Dakota. The workshop “*You should see what we saw*” will include demonstrations of portable mills, CNC machines, and solar kilns among others. The objective of this first workshop is to show the potential value of wood in South Dakota and the value of turning our over-mature trees in urban and windbreaks into valuable

products when the time comes for removal rather than the common practice of merely cutting and burning or burying the wood. The workshop will be held “rain or shine” at the N.E. Hansen Farm, just east of the I-29, 14 By-pass intersections

(exit 133). The workshop will begin at 9:30 am and conclude about noon. There is no charge to attend.

Information you can use



This is also the time of year when I get lots of questions about eating those ‘chestnuts’ that are falling everywhere.

This is one picture of these “chestnut” fruits sent in several years ago but I am getting them almost every day now. First, these are not chestnuts. The American chestnut (*Castanea dentata*) is not adapted to our state’s growing conditions and there are very few in the state. There are not many American chestnuts anywhere due to the

disease Chestnut blight that entered the country from Asia in 1904 and almost eliminated the species – once one of the most common trees in the Eastern Deciduous Forest – within 50 years. The Chinese chestnut (*C. mollissima*) is even less hardy and I do not know of any in South Dakota or western Minnesota. The Chinese chestnuts planted at the Minnesota Horticulture Research Center near the Twin Cities have been short-lived.

What people bring or send in as chestnuts are usually nuts from the buckeye tree (*Aesculus glabra*). This is a common tree in our region since the squirrels plant them for free in almost every garden. The nut contains the poisonous glycosides aesculin and fraxin. Ingesting the raw seed can result in muscle twitching, vomiting and abdominal pain, diarrhea and death. The raw nuts, tender shoots and leaves, particularly wilted leaves, are also toxic to horses and cattle (rabbits too but they seem to be smart enough not to eat them). Squirrels seem to do just fine eating the raw nut and it apparently contains a sweetener that (at least to a squirrel) is sweeter than sugar. The nut can be made safe for human consumption by roasting and leaching and they were used as a starchy food by Native American but I do not recommend even trying to do this.

E-samples



Some years I receive a rash of samples of a particular problem all within a short time period and this is true for Melampsora leaf rust.

The disease can be a common one though we often go a few years without seeing much of a problem then it suddenly appears everywhere again. It also seems to “appear” in late September so once again the samples seem to show up now. The first

indicator of the disease is the bright orange and yellow urediospores that form on the underside of the leaves. If you look close you can see them in this picture. Trees that are heavily infected will often have premature leaf drop with only the outer and upper most leaves remaining by early autumn. This is an interesting disease in that it requires two hosts, the cottonwood and an alternate host, a conifer and the two do not need to be close as the spores can be carried very long distances. Cottonwoods may also produce spores that infect other cottonwoods. The primary control is the use of resistant cultivars. 'Siouxland' was a poplar one, but has been discarded due to its susceptibility to canker disease.



Another foliage disease appearing now is tar spot (*Rhytisma*) on maples, particularly silver, sugar and numerous cultivars of Freeman maple. The disease begins as small yellowish spots that become raised, blacken and tarlike by late summer as seen in this picture of a 'Sienna Glen' maple. Treatments are not recommended as the disease does not show up every year since we need cool, moist springs to start the infection. The fungicide control for the

disease is an application of a copper fungicide at bud-break then two more treatments spaced about three weeks apart.



I received two e-samples of horntails, wood wasps, this past week. These insect are a large group of wasp-like insects that are woodborer during the larval stage. The name horntail comes from the long spear that occurs on the last abdomen segment. The "tail" is not for stinging but as an ovipositor (egg laying) to lay the eggs beneath the bark of the tree. The adults are attracted to dead or dying trees for egg laying and the eggs deposited as deep as a

½ inch or more beneath the bark hatch in about 3 to 4 weeks. The larvae feed in the sapwood and heartwood of the tree for several years during which time they construct long tunnels packed with a sawdust-like material. After several years the larvae become a pupa with the adults emerging in August and September.

Horntails are attracted to dying trees, rather than causing the decline of the tree, so there is little need to attempt to control the insect through sprays or injections with pesticides. The only concern is sometimes these dying trees are further weakened by the network of tunnels and are more susceptible to falling during strong winds. The insect will not infested dried or seasoned wood so they are not

a threat to wood furniture. Mostly they frighten people as they are flying around but they do not sting or bite.

Most horntails in our state are found in deciduous trees (and even stumps) with maples and elms being the most common hosts. However there is an exotic horntail, *Sirex noctilio*, which was discovered in New York in 2004 and has now been found in several locations in the northeast. This insect attacks and kills pine, including our native ponderosa pine, and has the potential to become a serious pest in our region.

Samples received

Brown County FL1300028

The willows in the grove are dying. The problem starts with yellowing leaves and eventually the branches dieback and then the whole tree dies.



The trees may be affected by two diseases, willow scab (*Venturia saliciperda*) and black canker and when they occur together (a common situation) it is called willow blight. Willow scab 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 and as mentioned a few weeks ago in the *Update* are closely related but the willow scab infected leaves will usually have “tufts” of spores on the underside of the leaf, generally along the midvein. The best management is to prune out and destroy any willow trees or branches have the dark sunken cankers along the wood, a common symptom of black canker.

Hughes County

Why are these honeylocust dying? They were planted about 11 years ago and now three of the five are dead.



Honeylocust are popular trees, noted for their fast growth rate and light shade. We do have honeylocust from Dakota Dunes to Spearfish but they are not well-adapted to the growing conditions found in much of the central part of the state. The dry summers, particularly the drought in the mid-2000s and the one in the early 2010s, resulted in stressing these trees so that they were very vulnerable to a number of canker diseases (Thyronectria canker is one of the most common in our state). If there are only a few small cankers on the branches these can be pruned out but once into the trunk the only option is removal.

Pennington County

about 12 feet tall and was planted by the birds.



Can you identify this tree. It is

This is common buckthorn (*Rhamnus cathartica*) a common small tree in our state that is one we would prefer not to have here. The tree is from Europe and was brought over as a tall hedge plant, a common use for it still today. The problem is that the birds will carry the seeds and deposit them everywhere and almost everyone will germinate. This has resulted in windbreaks and our few native woodlands in East River being crowded with these plants. Fortunately it is not as well adapted to the Black Hills and the forest there are not as impacted. The blue-black fruit that is clustered along the branches on the female trees (as seen in the picture that was sent in by other person recently) should not be eaten – eating handful of berries can result in very sudden and violent diarrhea.