Pest Update (June 18, 2014)

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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/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 product identified in this publication.

Plant development (Phenology) for the growing season

Plant development. We are still a little behind in plant development from most years. This week the arrowwood viburnums are in full bloom in Brookings. This shrub is often in bloom during the early part of June.

The South Dakota Department of Agriculture new Log Finder website

Last autumn we conducted our first "urban logging" workshop in Brookings. There is increased interest in utilizing our declining, but mature, urban and windbreak trees for wood products rather than merely cutting them down and either burn or bury in landfills. There are also an increasing number of small portable mills that can be transported to field sites to cut felled trees into lumber. The lumber can be dried in solar kilns and then used in furniture construction and more specialized uses such as clocks and plaques. The value to walnut logs is well known but there is also interest in other hardwoods such as hackberry and honeylocust.

The difficulty has been connecting mill operators who are looking for certain wood and people who have trees they want to sale. The South Dakota Department of Agriculture has launched a new Log Finder website to help match these buyers and sellers of trees and wood. The web site can be found at:

http://sdda.sd.gov/conservation-forestry/biomass-utilization/

The market is still in its infancy in South Dakota and sellers should look upon this as an opportunity to reduce their cost of removing unwanted trees rather than making lots of money. While there are high-value trees such as the previously mentioned black walnut, most hardwoods in our state are not able to command high prices. The ideal trees are those that do not have any branches, wounds or metal in the lower 10 to 15 feet of the trunk and the tree at 4 or 5 feet is at least 18 inches in diameter. Log buyers want to be able to cut some fairly large slabs from logs to make the effort profitable.

Timely Topics

Clearwing ash borer are flying. Last week was the reminder that our native clearwing ash borers were about to fly and they have begun to take flight. I found these two mating on a dead ash tree in Custer South Dakota last Tuesday. These adults are often mistaken for wasps and most people have the incorrect notion that all borers are beetles. The clearwing ash borer is actually a Lepidoptera, a member of the insect order that contains butterflies and moths. The adults look so much like a wasp or yellowjack, people are afraid to come near the insect as they believe they will be stung (works for birds too). I also found the exit hole for two clearwing ash borers on the same tree (and perhaps from the two adults I photographed) and the pupal skin can be seen at the entrance of the hole. The skin is often shed just as the adult emerges so finding this dark, papery skin on the trunk of an infested tree is fairly common at this time of year. Since the adults are emerging, and apparently mating, egg laying is not too far away. If a tree owner plans to spray their ash tree to protect it from this borer, the time to spray is now, if not earlier. Once the eggs hatch and the larvae are burrowing inside the tree, the insect is beyond effective chemical treatments.

E-samples

This last week was apparently the week for folks to notice some unusual plants coming up around their house or garden. These are “volunteer” trees, those that are not intentionally planted by the homeowner but just a gift from the wind, passing birds or squirrels. Rodents get the credit for the latest volunteer seedling questions. I receive two pictures of seedling trees that were coming up in a yard. The first one was a black walnut

(*Juglans nigra*). Squirrels like the nuts and will bury the tasty seeds for a later snack, but often forget where they left them. Walnut seedling can be identified by their pinnately compound leaves that are often long, more than 14 inches, and contain about 17 leaflets. If the owner wants to keep the tree, but in a different location, walnuts need to be moved early in the spring and before they get too old. Walnuts develop a coarse root system and they do not tolerant transplanting from a volunteer once the tree reaches about 4 feet or so.

The other tree is another common gift from a squirrel and this is the buckeye (*Aesculus glabra*). Squirrels will bury these large seeds in gardens or shrub beds. Buckeye also has a compound leaf but it is palmately compound, meaning the leaflets are arranged in a circle around a common petiole. This is probably one of the most common tree seedling coming up in a garden, the other two being cottonwood and Siberian elms (which are seeds that drift in on the wind). Free trees are not a bad thing and buckeyes can grow to become nice shade trees. Any tree discovered in the yard should be moved to the desired location next spring.

I also received a picture of an insect I usually do not see, **the boxelder gall midge** (*Contarinia negundinis*). A midge is a member of the order Diptera, flies, and this very small insect is responsible for the curled leaves and galls we can find on the leaves of boxelders at this time of year. The damage is not usually too severe and most people are not too concern about the appearance of a boxelder so the insect rarely catches the attention of tree owners. There is only one generation per year and the adults must lay their eggs on a leaf just as it is expanding in order for their young to survive. Since boxelder leaves do not come out all at once, most of the leaves on a tree will not be susceptible to attack.

I am beginning to receive emails regarding the orange spots that are appearing on ash leaves. The disease, ash rust, begins as bright orange spots on the petioles and undersurface of the leaves. These enlarge during the season, becoming almost gall-like and further distorting the leaves. These infected leaves usually drop prematurely resulting in round of telephone calls and emails from alarmed tree owners as their

yards become covered with leaves during July and August. The disease, as with many rust diseases, has two hosts, one is the ash and the other is a number of grasses. The disease can be control with a single application of a fungicide containing myclobutanil made just as the leaves come out but obviously that time period has passed. We do not recommend annually treating for the disease since it only periodically becomes a problem.

Another rust disease that is appearing right now is crown rust on buckthorn. Why anyone cares about a disease that attacks buckthorn is beyond me but I always get a few samples at this time of year. First buckthorn (*Rhamnus cathartica*) is a tall shrub/small tree that is sometimes becomes large enough to be confused with crabapples (except buckthorn does not have a showy flower and the fruit is a small purplish-black berry rather than a crabapple). The disease, crown rust, alternates between buckthorn and cereal crops and grasses. While buckthorn is the primary woody host, the disease is also present on *Elaeagnus* species such as silverberry and *Shepherdia* species such as buffaloberry. There is no control for the disease as buckthorn is considered a weed rather than a valuable ornamental.

Samples received/site visits

Codington County **What is causing the discoloration of these needles?**

This was once a commonly reported foliage disease of spruce but we have not seen too much of it in recent years. The disease, rhizosphaera needlecast, results in the discoloration, first yellow-brown then purplish brown, and later casting of infected needles. The disease is most common on the lower branches of spruce; particularly those that are planted too close, so the branches do not have good air flow around them. The disease is often confused with stigmina needlcast a foliage disease with similar symptoms but the fruiting bodies of the two pathogens are different. The management of rhizosphaera needlecast is applications of fungicides labeled for control of needlecast and containing chlorothalonil as the active ingredient. The first application is made as the new growth is about ½ inch long and the second three weeks later.

Hyde County **Why are Smith's trees dying?**

The tree submitted in the sample is a honeylocust, a common tree but one prone to a number of canker diseases when planted in the harsh environment of your county. The tree does better in the more eastern part of the state. I suspect that any decline noted on these trees is probably due to a canker but the only sample was of the leaves and the curling and cupping of honeylocust leaves is usually due to the feeding activity of the honeylocust pod midge, a small insect that causes the newly formed leaves to curl and eventually become distorted and shaped into small pods. The other common reason for honeylocust leaves curling is herbicide drift and nearby applications of 2,4-D and related chemicals can cause similar curling.

Stanley County **Why are the spruce dying at the school?**

The spruces are growing on some tough sites and this stress is allowing cytospora canker to slowly kill off the lower branches of these trees. I was able to easily find the tell-tale bluish white resin blisters of the canker on many of the dying or dead lower branches. There is no effective chemical treatment for this disease and the best management is to keep spruce trees healthy by watering them during our hot, dry summer and remove the infected branches.

Tripp County **What are these bumps on these maple leaves?**

The bumps are the result of mite activity, the maple bladder gall mite, and the cluster of galls turn from green to red to black as the season progresses. There is very little that can be done to control this mite nor is there a need since they merely make the leaves look ugly but do not reduce the leaf's functions.

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