Pest Update (August 17, 2016)

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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 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.

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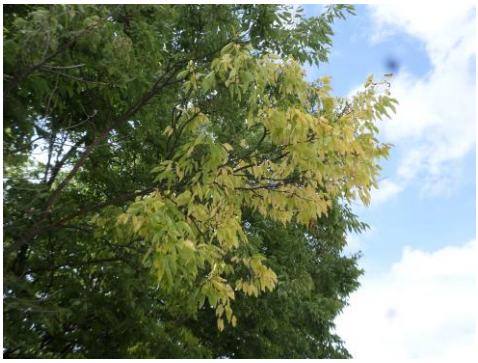
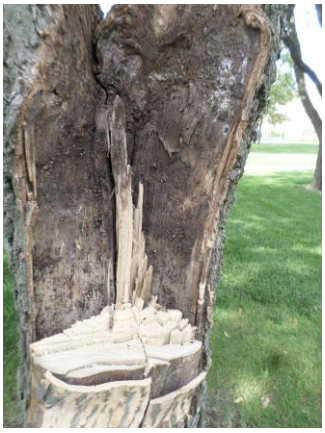
Plant development

The early season apples and crabapple fruit is beginning to ripen so the end of summer is not too far away. At this time of year most of the calls and questions relate to something wrong with the leaves, spots (usually a fungus) or yellowing, sticky leaves due to aphids and their honeydew. Most this these problems are not even problems and the tree will be just fine. This is not the time to treat most fungal problems and most of the aphids are nearly finished with their feeding so my advice is put away the spray and grab a fishing pole and enjoy a lazy August day.

Timely topics



Hackberries cannot catch a break this year! If you look up into the canopy of some hackberry trees, you'll notice that some of the branches have yellow leaves beginning to appear. A closer inspection of these branches will reveal that squirrels have chewed all the way around the branch. For some reason squirrels seem to enjoy feeding on the inner bark of these trees in the spring and late summer (most likely the higher sugar content). Unfortunately there is not much that can be done to prevent it.



What to do about a broken branch. The recent wave of storms has generated lots of calls from tree owners wondering what to put on or around the scar left from a torn branch. While these tears are susceptible to decay and further failures, there are no wound paints or dressings that are effective at retarding the decay process. Filling the scar with cement or drilling a hole at the bottom for water to drain out are equally ineffective. The best treatment is to do nothing (or consider removing the tree if the tear is more than 1/3 the way around the trunk). There is nothing that can be done to reduce the possibility of decay and if the tear is large and at a branch juncture, the reminder of the trunk at this point may also fail.

E-samples

I received this picture of **Juniper broom rust** (*Gymnosporangium nidus-avis*). This is a closely related disease to cedar-apple rust, but the symptoms differ. The broom rust causes these witches-brooms, proliferations of short shoots, to form along branches in the cedar tree. The brooms generally do not harm the tree and most brooms die out in a year or two but some can survive for a decade or longer. However, occasionally a broom can girdle and kill a branches. While there are no effective sprays for the brooms, if concerned about the appearance or that a branch might be girdled, they can be pruned out (but remember your pruning might remove more branch than the brooms). We find the disease on Rocky Mountain juniper (*Juniperus scopulorum*) and eastern redcedar (*J. virginiana*).

The real problem with Juniper broom rust is the disease alternated between the juniper and several broadleaf hosts, most commonly apple, crabapple and junipers. The disease on these hosts causes leaf and shoot blight. I usually do not see this disease on apples or crabapples but I have seen pockets of juneberries in West River woody draws that are covered with shoot blight from this disease.

Melampsora leaf rust is occurring on cottonwoods throughout the eastern half of the state. This is an annual occurrence with many cottonwoods, particularly the hybrids, and the loss of the lower leaves by late summer is a common symptom for this disease. Sometimes all that is left of the canopies by early September are tufts of leaves at the tips of the branches. The most common indicators of the disease are the orange-yellow pustules on the leaves. There are a couple of other leaf diseases that have similar symptoms so it is important to identify them correctly. Marssonina leaf spot, another leaf disease of cottonwoods and poplars, results in dark brown spots or blotches on the leaves and premature defoliation. Poplar mosaic virus causes chlorotic spots to form on the leaves and often these leaves are stunted and distorted. There are no chemical treatments for these diseases.

Samples received/site visits

Clay County **The hackberry leaves have nipple galls but there are also smaller discolored spots on the leaves.**

There are two different galls that formed on hackberry. The hackberry nipple gall maker (*Pachypsylla celtidismamma*) and the hackberry blistergall maker (*P. celtidisvesicula*). This tree has both! The smaller discolored spots are from the feeding by the blistergall maker. There are no effective treatments for either insect nor is necessary as only the tree's appearance is affected.

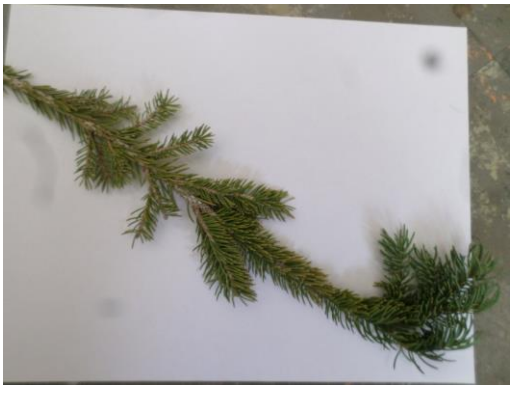
Lincoln County **Why are these ants in the cottonwood?**

Nothing like ants in the mail! These are carpenter ants and I have getting lots of calls about these insects this year! Most people are worried the ants are killing their tree. While they do not feed on wood (they eat other insects and honeydew) they do tear out chips of wood to form their nests. They can cut out enough wood to kill young trees or cause them to break but on mature trees they are not the problem. But they are good indicators that the tree has decay.

Moody County **What is this ugly black growth on the tips of these cottonwood shoots?**

This is a gall formed by the poplar vagabond aphid. The nymphs cause the tips to deform as the aphid feeds. They seem to attack the same trees year after year while avoid neighboring trees – apparently they develop a taste for certain trees! A systemic insecticide such as ones containing acephate as an active ingredient applied as the leaves are beginning to expand will provide some reduction in damage.

Turner County **This spruce was planted near a black walnut. Is this the reason it's stunted?**



It may be the case. Spruce, particularly young spruce, can be stunted from contact with juglone, a toxic substances produced by black walnuts. Juglone occurs in all parts of the tree; leaves, nuts and roots; but is most concentrated in the roots. The roots beneath the edge of the canopy are where we see most of the problem due to the higher walnut root density in this area but spruce and other sensitive plants can be affected if they are closer than a distance equal to the tree's height.

The symptoms are stunted needles and shoot growth. Interestingly, lindens are also sensitive and you included a sample of this tree. Lindens affected by juglone produce stunted, yellowing leaves similar to the ones submitted. However these same symptoms can occur with stem girdling roots and even aphids so juglone might not be the problem.

Turner County **What is on these apple leaves?**

These are the fruiting structures for cedar-apple rust. The leaves were infected back in May from spores released by the cedar (juniper) trees. The spores are now being released from the apple leaves and will infect the cedars. There is nothing that can be done down for the disease on the apple. Fungicides containing Myclobutanil can be applied as the leaves unfold and repeat three more times at 7 to 10 day intervals to reduce the incidence of the disease.

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