

Pest Update (August 7, 2013)

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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/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

Plant development



The hydrangeas are still in full bloom, very typical for this time of year. They do not look too happy about flowering during the heat (though these last couple of weeks of cool, moist weather has dramatically improved them) and since hydrangeas are known as “water pigs” – keep the hose on them!

Why are the leaves turning color?



I have been receiving calls and emails about the color change in the leaves (it was even reported on KELOland news). There are a lot of reasons for this early change but here are the most common. Aphids and scales are building up populations in many trees – larger populations than we have seen in years – and they



have become very common on elms, lindens and maples. The heavy sap loss on these trees is resulting in premature fall color. The leaves on these affected trees typically are yellowing and also sticky due to the honeydew production from the insects. Mites can also result in yellowing leaves, as can be seen in the above picture of the honeylocust. Viruses can also cause leaf discoloration and it is common to find a mosaic on hackberry leaves infected with a virus. The symptoms usually show up by this time of year and are often confused with those from herbicide applications. Another reason for individual branches turning color is squirrels! These small rodents are girdling the branches of hackberry and cottonwood resulting in yellowing leaves on individual branches throughout the tree as seen in the picture to the left. No control for the aphids and scales is necessary at this time of year. Control for squirrels? Depends on how good you are with a .22.

E-samples



I had another request to identify a volunteer tree that came up in a garden and stayed. The tree is now about 15 feet tall and the garden owner wanted to know what the tree was so they could buy another. This is mulberry, the tree that was discussed in last week's *Update*. This is an excellent picture of the leaves and note the different leaf shapes.

The leaf may have one lobe (looks like a mitten) or two lobes or not be lobed at all and all three leaf shapes can occur on the same tree.



I got a great picture of a witches' broom (numerous shortened shoots attached to a knot on the branch) on a hackberry tree. These are common on hackberries but little is known about how the brooms develop or what injury they cause to the tree (other than the appearance). The broom is thought to be due to the combined actions of a powdery mildew fungus and an eriophyid mite. The mite appears to start the bloom by infesting the buds and the mildew then infests the developing bloom. There are numerous other blooms that can develop on trees in our region. Spruces sometimes have blooms appearing on a branch or two and these rarely expand. Serviceberries also produce blooms though these are due to different agents than a mildew and mite.



Tar spot is showing up across the state and this, along with chlorosis, is making for a lot of unsightly Freeman, red and silver maple trees. The disease begins as greenish-yellow spot in late June and then develops into these black tar-like structures within a month. The remaining leaf tissue is usually chlorotic though may also remain green. The treatment for the

disease is two-fold. First, if practical, remove and destroy the fallen leaves this autumn to reduce the overwintering fungus (but this has limited value). The tree can be treated with a fungicide containing copper at bud-break but even this can provide only limited control of disease. It is often better just to do nothing since the disease only really develops if we have cool, wet springs (like this year).

Samples received

Grant County

This is growing in a yard and looks like a pine shrub of sorts. What is it and how do we get rid of it?

This is a poor eastern redcedar (*Juniperus virginiana*) that has been mowed off numerous times. A bird probably dropped the seed and it germinated –this happens in fencerow commonly but I have also seen it occur in yards. The only way to remove it is to dig it out but since it cannot sprout from the roots you do not have to dig down very far.

Lake County

What is wrong with these blue spruce from Riley? The needles are dropping off.

This may also be drought-related as the shoot extension last summer was very short and I suspect that many of the lower branches are also infected with

cytophora canker. The canker can be easily identified by bluish-white resin blisters along affected branches. The management for this disease is keeping the tree watered and pruning out the dying lower branches. The disease is very common on mature blue spruce (those about 25 to 30 tall or higher). However I also found some spruce needleminers. These are insects that in the larval stage are small enough to burrow into the needles to feed (hence the name "miner"). As they mature they can no longer fit in the needle but bundle them up into a nest and live inside this webbed cluster of detached needles. The management involves spraying the tree with an insecticide containing carbaryl as the active ingredient in April and then early July. Later this autumn he might try just shooting a high pressure stream of water through the plant to dislodge the miners.

Lake County

What is the problem with

Owen's spruce tree?

Much the same as Riley's sample but in addition I also found spruce bud scales in this sample. How much additional defoliation can be attributed to this pest is not known but probably it is a minor stress compared to the past drought, cytophora canker and the needleminer. I do not recommend any management of the bud scale (appears as small round reddish-brown objects at the base of the twigs) and Owen should focus on watering and pruning out dead and dying branches.

Meade County

What is problem with this

crabapple? The leaves have yellow spots.

The problem is apple scab. This is a common leaf disease of apples and crabapples and the symptoms are small olive green circles that enlarge and darken, often as the remainder of the leaf turns yellow. The best control at this time is to rake up and dispose of any fallen leaves (and that includes this fall) as these harbor the overwintering fungi. It is not a big help to control of the disease but it is about the only thing that can be done this year. Next spring timely applications of a fungicide are needed to reduce the severity of the disease.

Perkin County

Please identify these two trees

from Faith.

The one sample is from a mulberry tree (again a frequent sample at this time of year) and the other one with the compound leaf appears to be a Kentucky coffeetree. The leaflets were already detached and shredded but they certainly look like a coffeetree. This would be an unusual tree for Faith but I occasionally find a tree or two in these western communities.