

Pest Update (July 1, 2014)

Vol. 12, no. 14

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. **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.....	2
Timely topics	
Cedar dieback update.....	2
Apple maggot	3
E-samples	
Maple bladder gall.....	4
Plum pockets.....	4
Dog Vomit fungus.....	4
Samples received	
Brown County (venturia shoot and leaf blight).....	5
Brown County (leaf tatters on catalpa).....	5
Campbell County (cedar decline).....	5
Minnehaha County (chlorotic river birch).....	5

Plant development (Phenology) for the growing season



Plant development. The catalpas are finally in bloom in Brookings (at least the ones that survived the winter). This past winter was particular hard on catalpas and there are numerous trees in the eastern half of the state that have either died back to the ground or most of the canopy has died. This same dieback pattern is common in ash and walnut this summer, two species in which we rarely see winter injury.

Timely Topics

Update on the issue of dying cedars

Last week I mentioned the widespread loss of junipers (redcedars) in the central part of the state. The symptom pattern is individual or groupings of cedars, typically trees 6 to 15 feet tall, dying in a windbreak row. Generally the trees looked fine this spring but by now have turned brown. Usually the entire tree is brown, not just the tips or a few branches in the tree. During this past week I have inspected belts throughout the area to determine the cause of this rapid decline.



but the fabric does not split.

I did come across some belts where fabric girdling the trunk appears to be the primary cause of decline. We see a few belts a year where the trunks have become girdled by the fabric. Usually the trees are about 8 to 15 feet tall and the fabric beneath these trees is completely covered by soil and debris. Since the fabric is protected from exposure beneath cedars it does not become brittle or degrade and can girdle the trunk as the stem expands

However there were also belts in which the fabric was not an issue. The browning trees in these belts still had healthy twigs, branches, trunks and roots. Samples do not show any signs of a pathogen nor insect so the usual twig blight, cankers and borers have been ruled out. This may be environmental injury but further work is being done and another update will be provided next week. Regardless this is not a problem that will be treated with a spray.

Apple maggot (*Rhagoletis pomonella*) is one of the insects that can infest apples in our state and one of the most serious apple problems East River.

Symptoms of a maggot infestation are dimpled, lumpy appearance to the surface of the apple and the flesh often turning mushy and containing the brown trails of



the larvae – hence the other common name “railroad worm.” A sure sign of the pest – an unpleasant one if you happen to find one, or *half* of one, while eating the apple – is a small (1/4”), creamy white and legless larva in the fruit. The adults, resembling houseflies with banded wings, should be flying and placing eggs on the developing apples in another week or two and will continue egg-laying for another month. Once the eggs hatch the larvae

burrow into the apple. The apple maggot pupates in the soil and emerges as an adult beginning in early July. However emergence and egg laying do not really begin until the middle of July so there is still time plenty of time for control measures (even if any eggs are laid earlier in the season the egg is either crushed by the expanding fruit or the larvae cannot survive in the high-acid of the newly developing apple). Control is either carbaryl (Sevin) or Malathion applied in another week or two with subsequent applications every 7 to 10 days for three or four applications. Apple maggots tend to emerge from the soil after a 1/2-inch rains so some growers time applications with rainfall but this is not necessary for the home-production.



Another means of management is to place 3-inch diameter bright red balls in the tree, about 2 in semi dwarf trees (about 10-15 feet tall) and 5 in standard size trees (about 20-30 feet tall) that are covered with a sticky material called tanglefoot. The female apple maggot always flies to the biggest, brightest apple to lay her eggs and these will be the biggest, brightest “apples” in the tree. You cannot eliminate the pest by using this control but the population can be significantly reduced. The “apples” can be made from material found in almost any garden store – even can find tanglefoot at most hardware stores or you can buy the completed “apples” from the Internet, try www.GardensAlive.com.

Still another possible control measure is to spray Kaolin clay on the fruit. The clay is not a true pesticide but it irritates the adult apple maggot and they tend to fly to other fruit. The clay must be reapplied if we have some heavy rains so expect to make several applications during a season. The clay is sold as ‘Surround at Home’ and can also be obtained from www.GardensAlive.com.

E-samples

The e-samples this week are the problems I mentioned last week in Timely Topics. I have received numerous samples and emails about maple bladder galls and plum pockets.



As a repeat from last week, **maple bladder galls** are the small greenish bumps that appear on the upper side of the maple leaf. The galls turn red and eventually black as the growing season progresses. The galls form as a result of the feeding activities of a small mite (*Vasate quadripede*) on the underside of the leaves, though the galls themselves appear on the top. While the appearance of numerous bumps on the leaves can be a concern to tree owners,

they are nothing to worry about. A leaf can be covered with them, almost completely, yet the tree suffers little harm from the mite infestation (other than it looks ugly). There are almost no controls for this mite, and some recommended controls such as oil sprays just before bud-break can actually do more harm to the tree than the pest.



Plum pockets are a fungal disease of plums caused by *Taphrina communis*. All species of plums are susceptible and the disease is very common in our area. The symptoms begin as white blisters on the small developing fruit. As the blisters enlarge, the fruit becomes distorted and spongy. Eventually the fruit darkens to become grayish and hollow. There is nothing that can be done about the disease now and

little even during the control season as timing is critical. The control is a single spray of a copper sulfate fungicide applied just before bud-swell (note: do not apply a sulfate fungicide after the leaves form as it will damage them). A second application to the tree after leaf fall in autumn may also be beneficial in reducing the occurrence of the disease the following summer.



'Dog Vomit' fungus is beginning to show up in mulch beds throughout the eastern half of the state. This fungus, and the name is very descriptive, usually appears in June or July when the temperatures and humidity are high. The fungus generally forms in fresh mulch so most of the calls come in on mulches that have been placed this last spring or fall. The only control is to break up the fungus with a rake to

dry it out – it rarely reappears unless you add fresh mulch.

Samples received/site visits

Brown County FL1400012

Blackened shoot tips and leaves on aspen

This is venturia shoot and leaf blight, a fungal disease we see on aspens during years we have a wet spring. The symptoms start as irregular brown and black spots on the leaves and the infected leaf become deformed as the season progresses. The disease symptoms almost resemble fireblight by late June as the shoot tips turn black and curl forming a characteristic shepherd's crook. The disease is most common on younger trees, those less than 10-15 feet tall or so. It does result in some dieback of terminal shoots but the trees recover. No treatments are effective at this time of year and there are no fungicides specifically labelled for the disease.



Brown County FL1400013

Leaf tatters on catalpa

Leaf tatters and scorching are common on the few catalpas that actually leafed out this spring. This is mostly attributed to winter injury.

Campbell County

Declining cedars

See note under Timely Topics

Minnehaha County FL1400014

Yellow leaves on the river birch

This is chlorosis, a common problem on river birch due to our alkaline soils. The high soil pH limits the uptake of certain micronutrients. This problem and its management was discussed in detail in the June 4, 2014 issue of the *Pest Update*.

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.