Pest Update (June 25, 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. The Japanese tree lilacs are just beginning to bloom in Brookings and the gray dogwoods are now in full bloom. The catalpas, the ones that survived this past winter, have only recently leafed out and are probably a week or two away from blooming. This plant development pattern, while a little slow, is still is ahead of last year.

Timely Topics

This is the time of year when people start noticing "bumps' on tree leaves or fruit that appears "lumpy". The two most common problems that have appeared in the last week or so are maple bladder galls and plum pockets.

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.

Dying cedar questions are still continuing to pour in from central South Dakota. I have received pictures from Mobridge to Mission and many places in between. The typical picture shows windbreak junipers (often referred to as cedars) that have scattered plants in the rows that are completely brown with others that have substantial branch dieback and in the same rows trees that appear completely healthy. Some pictures of the inner bark on the trunk show the gallery patterns of the cedar bark beetle, a common bark beetle in stressed junipers. While the drought and its after-math was a common reason for decline during the past two or three years, this may not be the case this year. I will be visiting several belts in the Winner area this coming week and will report the findings in the next *Pest Update*.

E-samples

Holes in chokecherry leaves. I am receiving numerous pictures of chokecherry leaves that look like the tree was hit with bird shot. The appearance of shotholes in the leaves is often mistakenly attributed to insects but usually is the result of a disease. An infection of the unfolding leaf in the spring results in lesions that cannot continue to expand as the leaf enlarges so this dried tissue eventually tears away from the leaf and drops out. The holes are not very diagnostic beyond this point as there are bacteria, fungi and even viruses that can cause these holes to appear in infested leaves. Two of the most common diseases that create shotholes in the foliage are bacterial leaf spot and cherry leaf spot.

Bacterial leaf spot is caused by the bacteria *Pseudomonas*, the same organism responsible for bacterial blight on common and Japanese lilacs. The disease on chokecherries and other members of the *Prunus* genus can result in dieback and poor fruit set as foliage and flower buds are killed. The foliage that does open has necrotic spots that fall out creating the shotholes in the leaf and tatters on the leaf margins. Any fruit that does form may have brown or black patches. Cankers may also occur on infected branches. The management of this disease on cherries focuses on sanitation, removing fallen leaves and pruning out dead branches. The disease is more common during wet springs.

Shotholes can also occur from fungal infections by *Blumeriella* (*Coccomyces)* and *Coryneum*. The symptoms usually begin as dark purple to brown spots on the foliage that enlarge, dry and eventually drop out. The infected leaves usually turn yellow by mid to late summer and drop prematurely. Management for these fungal diseases also focuses on sanitation, raking up the infected, fallen leaves but pruning is rarely needs as canker formation is not common. Fungicides containing chlorothalonil can be sprayed in the spring as the leaves are emerging or a Bordeaux mixture (copper sulfate) can be sprayed after at least 50% of the leaves have dropping in autumn.

Clearwing ash borer pupal skins. I received this picture of the pupal skins of the clearwing ash borer. As mentioned in last week's *Pest Update*, these skins are frequently shed at the borer exit holes along the trunk of the tree. The adults have been emerging for the last week or two across much of the state so finding these skins is common. This is the native clearwing ash borer, an insect we see every year infested stressed and dying ash trees, not the exotic borer, the emerald ash borer, which has not yet been detected in our state.

Dieback on river birch, many cherries and catalpa are common sights this spring across much of the eastern half of the state. I received this picture from up near Sisseton of a dying river birch (which had looked fine until this year). Many of the river birch in Brookings look the same, as well as cherries (including the purpleleaf sand cherry) and catalpa. The cause of the decline of these trees, as well as other species, was our long, cold winter that began with a dry autumn. This combination resulted in severe dieback and decline of many trees this spring. There is not much that can be done other than remove the trees.

Samples received/site visits

Beadle County **The leaves on this crabapple are turning brown on the edges – is this spray damage?**

This looks more like apple scab, a very common fungal disease problem. The early symptoms are olive-drab to brown spots and marginal browning, exactly as the symptoms appeared on the samples and as reported in the *Pest Update* earlier this year.

Brookings County **What is wrong with this crabapple? Is it fireblight?**

Yes, this is the beginning stage of the shoot blight phase of the disease. A very common symptom is a single branch or two in a tree dying a few weeks after petal fall with the brown to blacken leaves left hanging. While the bacterial disease is often found throughout the entire tree, not just the branch expressing symptoms, pruning out the infected branches is probably still a good idea. Prune at least a foot below the symptoms (but do not leave a stub, make the cut at the junction with the trunk) and spray your pruners or handsaw with Lysol Disinfectant between cut to avoid spreading the disease further.

Meade County FL1400010 **Tattered Japanese tree lilac leaves The leaves on this tree are distorted. I have sprayed the tree and applied a liquid fertilizer but nothing seems to help**.

Leaf tatters is a common occurrence on Japanese tree lilacs in our state. The tatters, similar to the ones we see with hackberry, may be due to a number of causes but winter injury to the buds or frost damage to the expanding leaves is a possible one. The problem is sometimes associated with bacterial blight disease but this infection also results in extensive dieback of the tree, not just distorted leaves.

Minnehaha County **Insect found in the base of a cranberrybush**

I see this insect every couple of years, generally when someone notices the canes of these shrub breaking off. This is the pupa of one of the two viburnum borers (*Synanthedon fatifera* or *S. viburni*). These insects feed in the base of the stem, resulting in dieback or the stem breaking off at the base. The best control is a product containing permethrin, though ones labeled specifically for viburnums or the borer are hard to find. The best time to treat is now

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