Pest Update (March 16, 2016)

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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 products identified in this publication.

Timely topics

Spring is the time of year when people get around to removing trees in their yard. Removing trees and disposing of the brush is a hazardous undertaking and is best performed by professionals who have the training and equipment to safety remove trees. However, whether a professional

tree service removes the tree or the homeowner, there is usually the question what to do about the stump.

The most effective means of dealing with a stump is to hire a service to come out and grind it. This usually involves grinding out the entire stump to a depth of 8 to 12 inches and grinding any surface roots that flare out from the stump. Most stump grinding services charge by the inch, measuring the length of the stump in its longest dimension. Grinding the stump usually does not include removing the grounded chips or filling the hole with soil. Some services will perform these functions but usually at an additional charge.

The slower approach is to let the stump decay naturally but this can take a decade or more. The decay process can be accelerated by cutting the stump level to the ground, drilling 1-inch diameter holes into the wood, and pouring about 4 oz. of a slow-release fertilizer in each hole. After adding the fertilizer the holes can be filled with topsoil. The holes should be about 10 inches deep and spaced one foot apart. There are commercial stump removal products that can be poured in the holes but these are just fertilizers, either potassium nitrate or sodium nitrate. This accelerated process usually takes one to three years. You'll still have to use a sharp spade to break up the stump but it usually come apart fairly easy.

Some commercial product recommend pouring kerosene down the holes after six weeks and lighting it. This might be entertaining but the fire can smothering for a time period as it consume the larger roots. I don't recommend this practice.

E-samples

I received an excellent picture of **pine needle scale** (*Chionaspis pinifoliae*) on Colorado blue spruce. While I receive several pictures of pine needle scale during a year, this one is great because it shows the parasitized scales. If you look close, you notice that a number of the scales have a round hole in them. This is where the parasitoid emerged from the shell. The white scales you see now on last year's needles are the females and if you tear the shell off you'll find about 20 or more very small reddish-brown eggs. The eggs hatch about the time

common lilacs bloom and the crawlers emerge from their now-dead mom to the newer needles. Once there the crawlers insert the mouthparts into a stoma (opening in the needles for gas exchange) and begin to feed. The females loss their legs and develop the white waxy covering and the cycle begins again. Pine needle scale can be a problem on young spruce and pines but generally their natural enemies keep them in check. Many pesticide treatment, while well-intended, may kill more of their natural enemies than the scales. The best treatments are oils, either dormant or summer, depending on the season, to kill the eggs or (more effective) to kill the newly hatched crawlers. Oils tend to be more effective at killing the scales and sparing the natural enemies.

I also had a picture sent of a conk on the trunk of a quaking aspen. Conks are the fruiting structure for fungi, think of them as the apples on an apple tree. Removing the conks will not kill the fungi no more than removing apples will kill an apple tree. This particular conk is from **aspen heart rot** caused by the fungus *Phellinus tremulae*. The decay begins in the heartwood, the center of the tree, and over time this tissue decomposes and the decay continue to expand outward. This is a white rot so the lignin within and between cell walls decays reducing the strength and stiffness of the wood. Trees infected with white rots are predisposed to windsnaps and blowdowns. They may also fail in an unexpected manner while being felled. While infected trees do represent a hazard if in campgrounds, yards or along trails and should be removed, the removal should be performed carefully so the tree does not fall prematurely.

Samples received / Site visits

This was not a sample sent in but a site visit in Minnehaha County. A homeowner was concerned about the discoloration on a Concolor fir (*Abies concolor*) they had planted a year ago. The needles are discolored, a common outcome of winter-burn, but the twigs were brown, hard and dry. The tree had suffered more than winter-burn but winter-kill. Last fall was warm and dry, the perfect combination to stress an evergreen going into winter. Conifers should be watered starting at Labor Day to improve their acclimation to the winter cold.

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