

Pest Update (May 4, 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. **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.

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Plant development

The crabapples are in full bloom along with common lilac. We are a couple weeks ahead of most years. The purpleleaf sand cherries are also in bloom. This popular shrub is a 1911 introduction from N.E. Hansen, one of the most prolific plant collectors and former head of the former Horticulture-Forestry department at South Dakota State College.

Tasks to complete now



Clearwing ash borer treatment with an insecticide containing permethrin as an active ingredient can begin in another week. The bark must be sprayed to protect the tree as the insecticide will kill the adults (picture of their exit holes seen below) as they are walking on the bark while laying eggs. The insecticide will also kill the newly hatched



larvae before they burrow into the wood. Systemic treatments are generally ineffective so injecting a pesticide or pouring one around the soil are not practical means of managing this particular borer. The adults are usually out flying about a week or so after Vanhouttee spireas begin to bloom and the shrub is flowering now.



Diplodia tip blight first application of a fungicide should be applied soon. Tip blight is probably the most common disease of pines, particularly Austrian pine. Symptoms in early summer are the new needles becoming brown and stunted (as seen in the picture below). Twigs may be infected and become stunted and deformed. The treatment

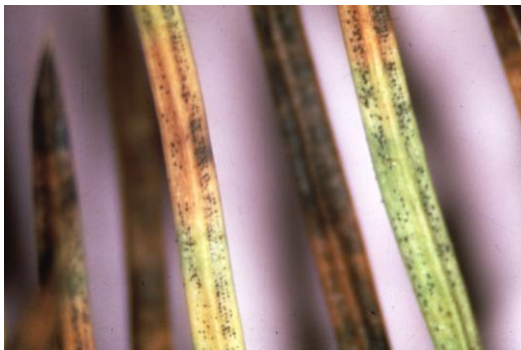
is a fungicide containing thiophanate-methyl, propiconazole or chlorothalonil (labeled for control of this disease) just before the buds sheaths have opened and should be happening soon. Timing is critical, once the bud sheaths have opened and the candle begins to form, it's be a little late to begin the first application and this is the one that provides most of the protection.



Zimmerman pine moth larvae will become active soon and begin burrowing into the wood. Infested trees typically have masses (appear as big globs of bubble gum) of reddish pitch near branch attachments. Treating the bark on the tree with an insecticide containing permethrin as the active ingredient is the most effective means of control. The chemical must be applied to the bark on the trunk so it is critical to make use the pressure of the sprayer is sufficient to penetrate the canopy.



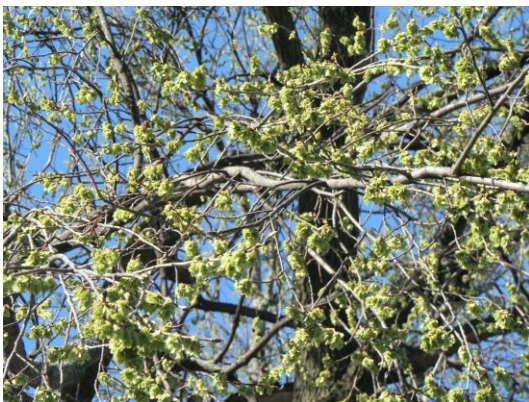
Tasks to complete soon



The new shoots will be expanding soon on spruce so it close to time to apply a fungicide to protect against **rhizosphaera** or **stigmia needlecast**. These are the most common foliage diseases of blue spruce. These diseases causes the older foliage to turn yellow by midsummer and then purplish-brown. Usually small black fruit bodies can be found in the spring lining the stomata along the needles. The

disease results in premature needle drop and a thin and discolored canopy. The disease can be managed by an application of chlorothalonil now and a second application in about two weeks. If the needlecast is due to Stigmia the applications may have to continue every 10-days through August. Also for this needlecast it is important to treat the entire canopy, not just the lower branches.

Timely topics



I have calls again this year concerning the large seed crops on elms. This year there is another abundant crop of elm seeds and now that the seeds are beginning to fall, people are noticing a gap in foliage just below the leaves near the shoot tips. This gap was where the flowers and fruit formed and does not represent a problem. The flower crop on elms can be so large that some people mistake the falling seeds for leaves and

are concerned that the tree is losing its leaves early in the season.

E-samples



I seem to get a picture or two in the spring of foam oozing out of the base of a tree. This is called alcoholic flux or white flux. It occurs when microorganisms ferment sap in cracks and other bark wounds. Alcoholic flux is acidic and nearly colorless though can appear (as pictured) as a white froth. It

often has a pleasant fermentative odor, almost fruity. This usually persists for only a short time period. It commonly occurs on stressed trees though the stress may be due to any number of agents including the base of the tree being struck by lawnmowers or grass-whips.



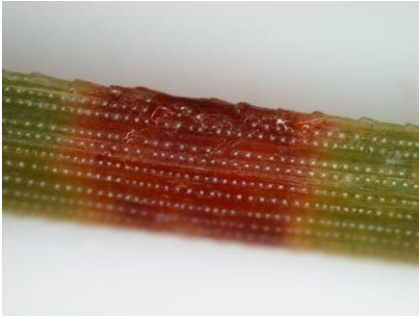
I received a picture of a sugar maple that has a long crack running down the trunk of the tree. This is sunscald, sometime referred to as southwest disease as it most often occurs on the southwest sides of young trees. The disorder is a result of the day to night temperature

fluctuations during the winter. The sun warms the bark on the south (and southwest) side of the tree (as high as 60°F or more) but at night the temperatures quickly drop to the ambient air temperatures. This rapid temperature change kills the phloem and cambial tissue. The dead tissue does not resume growth in the spring so as the rest of the trunk expands, this strip of bark cracks and splits. The disorder occurs on young trees as their bark is thin and most often on species noted for very thin bark such as lindens and maples. There is not much that can be done once the split appears other than carefully remove the torn bark with a sharp knife. Trees can be protected by reducing exposure to light from the south and southwest during the winter and wrapping the lower trunks with white plastic tree wrap to reduce the heat absorption. A slit drain tile that provides an air gap between the trunk and tile is even better at preventing the rapid temperature change.

Samples received / Site visits

Custer County

What is killing the needles on this ponderosa pine?



This appears to be dothistroma needle blight (*Dothistroma pini*) disease. Needles infected by this fungal disease characteristically have reddish brown bands that may contain black fruiting bodies. The fruiting structures are not always visible and it sometimes take a little precipitation for them to appear. The early symptoms of the disease are deep-green bands and yellow to tan spots on the needles. The bands turn a brown to

red brown with the tip of the infected needles turning brown while the base of the needle stays green. The disease is a foliar, rather than a twig, disease so rarely kills the tree but it can disfigure it as the older, infected needles are shed. Management is applications of copper or mancozeb fungicides applied as the new growth expands (mid-May) and repeated in late June. Ponderosa and Austrian pines should also receive a third application in mid-July.

Stanley County

What is causing these needles to fall?



Well on a spruce, almost anything can cause the needles to fall; drought, flooding, canker diseases, needlecast diseases, etc. But in this instance it looks like the key stressor is the spruce needleminer. The spruce needleminer (*Endothenia albolineana*) is found across northern United States and southern Canada. It can be found on all spruce species but seems to be a particular problem on Colorado spruce (*Picea*

pungens), often called blue spruce. The larvae of this insect overwinter in nest formed by dead mined needles wrapped together with silk. The best management at this time of year is a high-pressure stream of water to dislodge the larvae from the tree then rake up and dispose of all the fallen needles.

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