

# Pest Update (May 3, 2017)

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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.

## 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 for the growing season



We hopefully had our last snow storm of the season and now will return to warm temperatures. The cold snap stalled a lot of flowering so the pears are still in bloom and the crabapples and double-flowering plum are just beginning to flower in Brookings. This Candymint crabapple was in full bloom down in Yankton where spring comes a little sooner.

We are also seeing our early spring spireas starting to flower and I suspect with the moist soils and warm temperature forecasted this weekend lots of trees and shrubs will be in bloom next week!

## Treatments to do now



**Clearwing ash borer** treatment with an insecticide containing permethrin as an active ingredient can begin now. The lower 6 to 10 feet of the ash trunk should be sprayed to protect susceptible trees. The insecticide will kill the adults as they are walking on the bark to lay their 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. You will also know the adults are flying when you see the pupa skins sticking out of the emergent holes on infested trees as seen in the picture to the right.



All ash trees do not need to be sprayed, just ones that are showing stress from drought or other stressors. A healthy ash tree usually is not susceptible to this borer.

## Treatments to do soon



**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 a little late to begin the first application and this is the one that provides most of the protection.



The new shoots will be expanding soon on spruce so it close to time to apply a fungicide to protect against **rhizosphaera** or **stigmina 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 Stigmina the applications may have to continue every 10-days till August. Also for this needlecast it is important to treat the entire canopy, not just the lower branches.

## Timely Topics



What did this cold snow do to my trees? Probably not as much as you think but I expect to see some injury. The night temperatures that dropped into the 20's and even teens will injure newly emerged, tender leaves. If the leaves have fully opened, as with many of the buckeyes, they should have little injury. Trees that are still waiting out the winter, such as bur oak, where the buds are still tight will not be impacted. The trees that were caught with partially open leaves, elms, hackberries, maples, and pears will experience the most damage.

Frost damage appears as water-soaked leaves that turn brown or black as it shrivels. The leaves may look distorted



as they wilt and sometimes the injury is confused with herbicide drift. The blacked, wilted leaves soon drop and the tree will leaf out again from dormant or adventitious buds. This process may play out over the next month so don't expect to see the injury or recover right away. As many will recall, hackberry was hit by a May frost last year and many of these trees did not recover until July.

You are also going to see a lot of red in the emerging silver maple leaves. Leaves that were partially emerged when the cold struck have stalled and build up anthocyanin, the pigments that give the red color to the leaves. Since the leaves are not producing as much chlorophyll when damaged the leaves become almost as bright of red as we see in autumn. This red coloration is a stress reaction but it's a good reaction. The anthocyanin protect the foliage from cold injury.



## E-samples



**I seem to get a picture or two every spring of foam oozing out of the base of a tree.** This is called alcoholic flux or white flux. It occurs when microorganisms ferment the sap and it oozes out from 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. Maples seem particularly susceptible to this disease.



Here is a great picture and question; "*What is breaking the pine needles off?*" **This is deer damage on an Austrian pine.** The upper two-thirds of the needles are torn away, typical of deer. Austrian pine is one of the most preferred trees by deer for browsing (and Colorado blue spruce is one of the least preferred). This is a fairly common sight on the lower branches of Austrian pines in the spring. There is nothing

that can be done at this time. The deer are moving to fresh greens as the spring progresses. The damaged needles will brown a little more and be shed prematurely.



I received this picture with the question; “Why are the woodpeckers looking for in this tree?” The woodpeckers are drilling into the bark in search of the larvae of the **gall wasp** *Callirhytis flavipes*. During the winter the small, white larvae are found within the inner bark of the branches and twigs of mature oak trees and the trunks of young trees. The gall wasps emerge in the spring as adults and move to the newly expanded leaves where they insert eggs into the midrib, the central vein of the leaf. Once the eggs hatch, the larvae form a gall on the vein and live out their short lives within this structure. Adults emerge later in the season and lay eggs on the twigs and branches.

The galls formed by this gall wasp are not particularly harmful to the tree, no more than the many other galls that form on oaks. What makes this gall wasp a problem is the woodpeckers that feed on the larvae during the winter. The woodpeckers can shred most of the bark from young trees, enough that the trees are be killed by this injury. The trees that are not killed by the woodpecker activity, often have the tops killed back enough that the trees become misshaped and of little value as a windbreak tree. Fortunately there are also many trees that recover from this injury so do not cut the tree down too soon.



Management of the problem is difficult. Some people have tried protecting their small oaks with Tanglefoot Bird Repellent<sup>®</sup> on the trunk. This is a sticky material that comes in a caulking tube that can be smeared on the trunk to discourage woodpeckers. This is a very time-consuming task and must be repeated every year. Some others have hung flashy tape and ribbon in the trees to discourage the woodpecker activity in late winter and spring.

Insecticides to kill the gall wasps have not be completely evaluated yet. The timing for insecticide sprays is critical and the gall wasps are flying for an extended time period in the spring and late summer. Injecting insecticides to kill the larvae as they feed have not proved successful yet for *Callirhytis*. Not all trees are infested by the gall wasps. It is very common to find several bur oaks growing near one another and only one tree infested by the wasps. The bark on the infested trees appears to be less furrowed than the uninjured tree but this is difficult to evaluate as the woodpeckers have often removed so much bark it is hard to tell the origin texture.

## **Samples received/site visits**

Duel County  
**brown?**

**What is causing these yews to**

The brown tissue was above the snowline during this winter. The browning needles are desiccation injury due to the combination of warm winter weather and the dry fall. Yews are best planted on the north side of a home where they receive protection from the winter sun. They also need protection from the winter winds and these tend to be from the northwest so planting on the north side of a home might subject the plants to winter wind – you cannot win! This is why yews are not as popular in South Dakota as much as they are on the Coasts.

Minnehaha County  
**spruce? The tree is about 20 years old and the discoloration to the needles started last year.**

**What is wrong with this blue**

This is Stigmina needlecast disease. See the information under [Treatments to do soon](#) for management of this disease.

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