

Pest Update (January 3-10, 2018)

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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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Happy New Year everyone and welcome to another season of the *Pest Update!*

This publication will be out about every two weeks during the remainder of the winter and move to weekly as the growing season begins. A big **thank you** to all the readers who sent in samples, pictures or questions during the past year, I could not do this publication without your help!

Timely Topics

Barking up the right tree! Too often we view winter as a “dull” season for landscaping but it does not have to be this way. Evergreens, of course, can provide winter interest in the home landscape, but too many South Dakotans (and a good many Minnesotans) make almost their entire landscape evergreen. A good rule-of-thumb is to have no more than about a third of your home landscape in evergreens, either trees such as pines and spruce, or shrubs such as arborvitae and junipers. What else to plant for winter interest? Here are some suggestions.



Three-flower maple (*Acer triflorum*) is an attractive small tree (15 to 25 feet at maturity) that is known for its autumn foliage color – dapples of red and oranges – and its reddish brown exfoliating bark. This is a tree truly at its best from October to April! The tree is adapted to much of the state.

River birch (*Betula nigra*) is a birch noted for its bark that really is not quite what you expect from a birch. The bark is not white, but a light cinnamon-brown that peels in wide strips. The bark of a mature river birch is more furrowed than peeling but it is still an attractive tree. The mature height is about 30 to 40 feet and it can tolerate our winter cold but not our alkaline soils so best planted on a soil that has a neutral pH (near 7.0).



Shagbark hickory (*Carya ovata*) is a rarely planted tree due to its large nut and slow growth but everyone is missing out on a real beauty. The tree has attractive grayish-brown bark in youth that develops long, thin curved plates as the tree matures. You will enjoy the bark, the squirrels the nuts so it sounds like a nice bargain. The mature height of the tree is about 30 to 40 feet in South Dakota and soils with a neutral pH are best.

Amur chokecherry (*Prunus maackii*) bark is a shiny cinnamon brown that exfoliates from the bark. This is also a very hardy tree and is frequently used as the small tree row in shelterbelts. It is also tolerant of alkaline soils, at least to a pH of 7.5, but will not perform well on poorly drained soils. This small tree, about 15 to 20 feet at maturity, is hard to beat for winter interest.



The first sign of spring! Red oaks have begun to drop their leaves in Brookings. Oaks have persistent leaves and on some species such as red oak these will remain hanging from the tree into early winter. But once the days start to lengthen, the leaves finally begin to drop and the ground around some trees was littered with leaves this past week. The day is only 3 minutes longer at this point so only a few trees are shedding their leaves but most of the young red oaks will be bare by the end of January. Yes, we have a lot of winter ahead of us, probably a lot of *cold* weather ahead, but there are already a few signs that spring is on its way.

E-samples



I received this picture of a windbreak hackberry with the branches completely girdled at the base. The culprit in this instance is a **squirrel**. Surprisingly, hackberry and Siberian elm are some of their favorite trees to gnaw on during the winter, along with plum and other fruit trees. They commonly feed on only certain trees in a row, almost randomly, but more likely these are trees that are just a little “tastier” than the surrounding ones. Some other preferred trees are basswood, little-leaf linden, and maples (mostly silver and sugar maple). There is not much that can be done to discourage squirrels from doing this other than placing a metal collar at least 2 feet

wide around the trunk at about 6 feet from the ground to discourage them from climbing (remember to remove the collar in the spring so it does not girdle the tree). However, squirrels can still jump from branches to access the canopy directly so prune off the lower 8 feet of branches and prune the side of the canopy to create 8 feet of clearance between the tree and any other high structure such as a building or other tree. Obviously this is a lot more work than using a .22.



The funny growth on the tips of hackberry branches is known as **witches-broom**. How and why the brooms develop on branches of one hackberry and not the one standing next to it is unknown, nor is what causes the problem in the first place well understood. An eriophyid mite (*Eriophae*) is found in association with the brooms and also a powdery mildew fungus (*Podosphaera phytoptophila*), though the presence of the mildew does not appear to

be a prerequisite for the disease. It may be merely invading buds already deformed by the mite, but regardless these two are found with brooms. The disease may look bad, but it is not harmful to the tree. However, a tree loaded

with brooms may experience more branch breakage in ice storms since ice accumulates easily in the fine twigs that form the brooms. There are no effective treatment of witches-broom since the disease is so poorly understood; pruning out brooms is the only recommended practice. But this will not prevent them from coming back.

Samples received

Hutchinson County

What is wrong with this spruce?



Of course the first sample of the year has to be a spruce! This sample had two problems, **spruce bud scale** (the light-color spherical forms in the center of the picture circled in yellow) and **pine needle scale** (the small white bumps on the needles circled in blue). These scales are common on Norway spruce, but also occur on Black Hills spruce particularly on the lower shaded branches. You can also find both scales on Colorado spruce, but this tree seems

to suffer few infestations of scales. These scales sucks the sap from the shoots and needles and this feeding may be responsible for needle loss and branch decline but it is probably not the primary reasons for these symptoms. Generally I also find cytospora canker on the lower branches and that may be the case here, but the sample was not long enough. Generally we do not treat these scales as the populations are rarely large enough to harm the tree and their natural enemies do a good job of keep their numbers in check.

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