

Pest Update (September 17, 2008)

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John Ball, Forest Health Specialist, Extension Forester

Email: john_ball@sdstate.edu

Phone: 605-688-4737

Samples sent to: John Ball
Horticulture, Forestry, Landscape and Parks
Rm 201, Northern Plains Biostress Lab
North Campus Lane
South Dakota State University
Brookings, SD 57007-0996

Available on the net at:

<http://www.state.sd.us/doa/Forestry/educational-information/Pest-Alert-Archives.htm>.

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.

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Treatment now

Now is the time to be treating spruce spider mites. I have received numerous samples this summer, as I do most summers, of spruces showing the typical symptoms of spruce spider mite infestation, stippled, bronzing needles, fine webbing in the twigs and branches and a dusty appearance to these same branches from the frass and other mite debris. The injury occurs mostly in the spring and fall when temperatures are cool and the mite is actively feeding though the symptoms do not appear until the summer. This is when most people want to initiate control but during most of the summer this particular mite is not active and control is ineffective. The best time to treat is either in the spring, just as silver maple is leafing out, or in the fall, just as silver maple leaves are beginning

to color so now is a good time to treat the problem. Unfortunately, treatment options are very limited for homeowners. The most commonly available pesticides have limited effectiveness on mite populations and some can alter the appearance of the spruce, particularly Colorado blue spruce, turning the silvery-blue foliage to a pale green. The pesticides available to homeowners at garden centers and department stores are horticultural oils, insecticidal soaps, or pesticides containing acephate or malathion as an active ingredient. Insecticidal soaps are not very effective for mite control and acephate and malathion are weak miticides. Probably oil is the best product for homeowner to use but again, may cause a blue spruce to become green. The product also will need to be applied twice, two weeks apart, with the first application now and another at the end of the month. Since eggs are hatching now and will continue for a couple of weeks, the multiple treatments are needed to kill the mites as they hatch. Most of the injury, and mites, are on the lower, interior foliage so spraying into the tree, not just misting the outer needles, is needed. Another very low tech, but useful technique, is just to spray the tree with a high-pressure stream of water to dislodge and kill the mites. Two strong sprays, two weeks apart, are also needed for this technique to work. Commercial applicators have better products available to them and homeowner may find more effective control by hiring someone. Regardless of who is treating the tree, be sure that the mites have been identified as the cause for the symptoms, spruce spider mite is one of our most commonly misdiagnosed problems.

E-Samples

A common email this week has been concern about trees, particularly elms, with leaves turning yellow and falling. A number of people wondered if these symptoms, on elms, are indicators of Dutch elm disease.



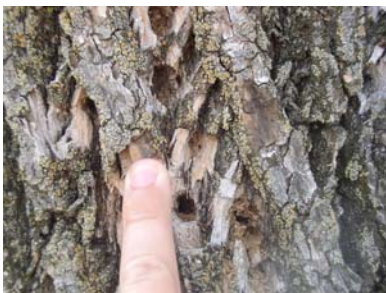
While Dutch elm disease has been a serious problem this year, some communities saw a significant increase in trees identified as infected (though this was not state-wide), the symptoms, yellowing and wilting leaves, can easily be confused with other problems at this time of year most notably aphid and scale infestations. Most cities complete their Dutch elm disease surveys before now to avoid mistaking Dutch elm disease symptoms with other stressors. Other tree species also have discolored leaves appearing at this time but due to many possible causes. Regardless of the stressor or stressor responsible for the discoloration, most of these problems occurred earlier in the year. We are beginning to see apples dropping yellow leaves that were infected with apple scab or cedar-apple rust last spring or ash dropping leaves infected with ash rust much earlier this year. At this time of year there is not much that can, or should, be done regarding these foliar disease problems. Treatments can be initiated next spring to reduce the problem and, for some diseases, raking up the fallen, infected leaves can reduce the severity of the disease next year but even effort requires a lot of work and in town you would also need to rake up the fallen, infected leaves from the neighborhood to have any benefits.

What is this tree? A very common sample, both email and mail, is white mulberry (*Morus alba*). Many of these mulberries are the Russian mulberry (*Morus alba* var. *tatarica*), a variety of the white mulberry. While it is not a native tree, it is from Asia – and the Russian variety is from a colder region of that continent, it has been planted extensively throughout the state and the birds have “planted” it even more. The reason



for the confusion regarding the identity of the tree is that mulberries have three different leaf shapes, a leaf that is egg-shaped, another that is lobed in the shape of a mitten and a third that has two lobes, and all three leaves can occur on the same tree (or even branch!). The tree usually achieves a height of 20 to 25 feet at maturity with an equal spread. Mulberries also tend to suffer some dieback in our climate so it

is a common sight to have trees with dead branches or twigs. The tree is probably best known, and disliked, for its aggregate fruit that looks very similar to a raspberry. The fruit can be found littering the ground beneath a tree in mid-summer. Books often say birds enjoy the fruit but considering the amount that can be gathered from a tree, apparently the fruit is not a favorite. The fruit is usually reddish or purple but some of the cultivars produce white fruit, hence the common name white mulberry. Mulberry is one of those rare tree species where the sexes are mostly separate so trees are generally either male or female, though an occasional tree can be found with both sexes of flowers. There is a mulberry native to South Dakota, though only in the southeastern region of the state, the red mulberry (*Morus rubra*). Red mulberry fruit is a deep red or purple and is usually much sweeter than the white mulberry. The leaves are similar in shape and lobing but the red mulberry upper leaf surface is rough, almost sandpaper-like while the white mulberry is shiny.



What is attacking my ash? I have received a lot of email pictures of declining ash. These trees typically have small, pencil-size, holes near the base of the trunk. There are two insects that can be responsible for these emergent holes but the most likely is our native ash borer (*Podosesia syringae*). This insect, a member of the clearwing moths, emerges in May and early June in our state. The emergence holes often have a thin, papery

pupal skin attached to the side of these holes. We have a lot of ash infested with this insect. Declining ash, particularly small ones (less than 8 inches in diameter), are often filled with them. Many of the eastern states that are dealing with emerald ash borer have found that many of their ash were also infested with the native ash borer but the problem had been overlooked until the more serious threat of emerald ash borer came along and dying ash were given a closer look. Another borer that attacks ash in our state is the carpenterworm (*Prionoxystus robiniae*). This insect attacks many other hardwood species in addition to ash. Carpenterworms may live as larvae in the wood for several years and becomes about 3 inches long, about 2 inches longer than a mature ash borer larvae. The

galleries, or tunnels, are much larger as well but the galleries and larvae are only going to be visible if the tree is felled and cross-sectioned.

Samples received

Brookings County

Why is my plum tree producing

these globs of sap along the stem?

Gummosis, the production of amber-colored sap along the trunk and limbs, is a nonspecific condition of stone fruits, apricots, cherries, peaches and plums, which may be due to wounding from insects or mechanical causes or pathogens. A common cause for gummosis on plums in our area are perennial cankers caused by fungi, *Valsa* is a common one. The control is to avoid injuring trees since this provides an entry point, reduce moisture stress to improve tree health and prune out infected branches and trees. I would advise removing the tree considering the amount of cankering.

Haakon County

Why are these boxelders dying?

The trees were Sensation boxelder (*Acer negundo* 'Sensation'), an unusual cultivar of an underappreciated tree. The Sensation boxelder has a reddish-green color to the leaf as it opens and then a bright red fall color, quite different from the typical boxelder. The form is also unique for a boxelder, developing from a single straight trunk, rather than a crooked one. This cultivar has not performed well in the eastern part of our state, but has done well in the western parts that are within the USDA plant hardiness zone 5. The reason for the decline of these trees was not due to weather but soil. The declining root system indicated drainage issues and subsequent site visit showed this to be the case. The cultivar does not do well in poorly drained soils.

Union County

What are these growths on the pine tips?

These are the deformities created by the metallic pine pitch nodule maker (*Retinia metallica*, Syn. *Petrova metallica*). The slightly elongated, smooth nodules, or blisters as they are sometimes called, are found on the tips of ponderosa pine trees throughout the state, but more commonly in the Black Hills. In late summer to the following spring a small, less than ½-inch, orange-brown solitary larvae can be found in each nodule. A common, but time-consuming, method of control on young trees is pruning off the nodules in mid-winter and burning them. Insecticides, either applied on the foliage in mid-summer when the adult moths are flying or as systemic applied around the base of the tree, have not shown much effectiveness. Carbaryl sold as Sevin XLR may be worth trying if the infestation is heavy. This should be sprayed on the canopy in mid-summer.