

# Pest Update (May 15, 2013)

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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/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 product identified in this publication.

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## Timely Topics



**Plant development.** We are still way behind in plant development from most years. This year the serviceberries are just beginning to bloom in Brookings; about three weeks later than normal. While other parts of the state are ahead of this, the forsythias bloomed in Yankton a week ago, every place is behind from what they normally would be.

### Treatments 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 should begin flowering in another week or so.



**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 bud 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.



**Spruce spider mites** become active now as silver maple leaves are expanding. Spruce spider mites are cool season mites meaning they are active in the spring



and fall, not during the summer heat. The mites will go dormant once the temperatures *consistently* reach into the mid 80's. While the mites are beginning to feed, the damage to the needles, bronzing and browning, does not typically show up until summer just as the mite populations begin to decline. Treatment options are very limited for homeowners, horticultural oils and insecticidal soaps being the two most common.

These are really suppression treatments, not eradication, and the webbing often prevents these pesticides, particularly the soap, from penetrating. They should be applied now and then another treatment next week, about 7 to 10 days after the first treatment to kill new mites as they hatch from eggs. Be aware of the cautions to the use of these products, particularly for spruce, as applications of oils or soaps can result in the loss of blue or silvery color to the foliage. You can make a *blue* spruce, a *green* spruce, very quickly, so read and follow label directions very carefully. You can also turn it *brown* if you apply oil sprays when the temperatures are too hot so read and follow label directions exactly. A spray homeowner can use on their smaller yard spruce contains tau-fluvalinate as an active ingredient. This is usually found in pesticides that also contain chemicals to kill insects so it will be one of the active ingredients listed rather than the only one. Pesticides containing tau-fluvalinate and labeled for mite control should be applied in two treatments spaced 10 days apart.

There are a number of products that commercial applicator can use that provide excellent control and have minimal impact on non-target organisms. However, it would be worth the time and money to have a commercial applicator provide these treatments considering the effectiveness of these products versus those available to homeowners. This is one pest it is far better to pay for a professional than attempt to do it yourself.

And finally, another value in hiring a professional is to be sure the problem is spruce spider mites. We have another mite, the two-spotted mite, that is found on many plants in our state (including soybean) and sometimes it is the problem on the spruce, not the spruce spider mites. The two-spotted mite is a warm season mite and does not overwinter on spruce bark so the timing of controls is different.

### **Is it okay to use fresh wood and bark mulch in the landscape?**

This is a common question from the areas of the state that were recently hit hard by the April ice storm. The storm left thousands of broken and fallen trees in its wake and this debris is being rapidly turned into chips. Homeowners are wondering if these chips can be used for landscaping this spring and summer or if they must be composted first. The two most commonly mentioned concerns with using fresh wood chips in the landscape are *will the chips transmit diseases*



*to the trees and shrubs that the mulch is used around and will the chips rob nitrogen from the soils and cause the plant leaves to turn yellow?*

There is very little fear of transmitting a pathogen to a tree via the mulch, even if the mulch is fresh. Most disease organisms do not survive for very long in mulch. The only possible concern is transmission of pine wilt if fresh pine chips containing the nematodes are placed around another pine that has wound near the base. Another often cited concern is transmission of verticillium wilt or Dutch elm disease but this is highly unlikely.

The other frequent concern is that fresh chips will result in a loss of soil nitrogen and yellowing of plant foliage due to the loss of this element. Nitrogen is generally the element most lacking in the urban landscape and is usually the only one that needs to be added on a regular basis (our soils contain adequate amounts of phosphorous and potassium for woody plants). It is true that incorporating fresh wood chips into the soil will reduce available nitrogen as the soil microbes that break down the wood utilize soil nitrogen, however if the wood chips are placed *on* the soil, not *in* the soil, this is not a major concern. The only soil layer that may show reduced nitrogen is the upper couple of inches and this will not result in enough nitrogen reduction to affect woody trees and shrubs. Also most of the chips being produced from the ice-damaged trees are very coarse, large dimension, so do not break down very quickly and there is even



less of a problem with a nitrogen deficiency. The loss of nitrogen can be a problem, however, for vegetables and annuals so do not use fresh wood chips, particularly sawdust size chips, in the home vegetable garden or as mulch around annuals.

The fresh chips can be placed around established trees and shrubs to a depth of 3 or 4 inches and leave a 6 to 12 inch space around the base of the plant mulch-free.

## E-samples



**I have calls again this year concerning the large seed crops on elms this spring.** 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 at the shoot tips. This gap was where the flowers were located and does not represent a problem.



I received a picture of a line of dying spruce. This is a common sight in many communities across the state. Spruce often begin to decline when they are about 20 or 30 years old and mature specimens as seen in the picture will have a multitude of stressors from cytospora canker to spruce bud scale but the underlying problem is old age and drought and there is not much that can be done to correct these problems. The only recommendation, other than

removal is to prune out the dead and dying branches and water.



I got this great picture from Belle Fourche of ants clustering on the stems and branches of spruce. What they are clustering around are spruce bud scales. The spruce bud scale is a soft scale, one that produces honeydew. The honeydew is attractive to ants and they will swarm a plant containing the scales. The plants appear healthy and the scale population low but this insect can

be treated with systemic insecticides, such as ones containing imidacloprid, that will kill the crawlers as they feed. Foliage sprays can be effective but in low populations may kill more of the insects that feed on the scale than the scales.



I also received these pictures of junipers that are partially covered by windblown soil. They were wondering if the trees could be saved by digging them out. The answer is that they probably can be saved by removing the soil out around the trees. Junipers are not very tolerant of any disturbance that affects the root system. Flooded soils or soils that have had fill placed over them being the two most common disturbances of this type. If the soil can be

removed soon, particularly on around the trunks the plants may survive.

## **Samples received**

Hamlin County  
**spruce tree?**

**What is wrong with this seven-year old**

This looks much better than any other spruce sample I have received so far this year; growth is normal and good color. Some of the needles have a purplish cast to them, however, but this symptom is associated with everything from drought (most likely) to planting too deep, to poorly drained soils. Can you send a picture of the entire tree?

Stanley County

**What is this yellow-flowering shrub?**

This is forsythia (*Forsythia*) probably one of our nicest early spring flowering shrubs. Unfortunately many are not flower bud hardy to our climate so few cultivars flower as nice as they do in more mild sections of the country. The best cultivars for our area are 'Meadowlark' (a joint SDSU and NDSU introduction) and 'Northern Sun' (a U of M introduction). These are reliable bloomers but a little late this year due to the cold April weather.

Tripp County

**What is wrong with this plant? Some of the needles are turning yellow and others are brown. Most of the damage is on the south side of the trees.**

The plants are American arborvitae (*Thuja occidentalis*) an evergreen tree or shrub used in landscapes throughout the eastern portion of the United States and into Minnesota and the Dakotas. While there are some highly adaptable cultivars such as 'Rushmore' many arborvitae suffer from winter burn and winter browning in our state, particularly during droughts.