## Pest Update (May 29, 2013)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do <u>not</u> 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 crabapples just finished blooming in Brookings; about a month behind last year and a couple of weeks later than normal.

#### Treatments now or very soon



Codling moth treatment time is coming up as the adults will soon be out laying eggs. Once the larvae hatch they will burrow into the developing apple, usually near the base of the fruit, resulting in a trail through the apple filled with brown, powdery frass. This frass often extrudes from the entry hole as since in the picture to the left. The treatment is usually malathion applications, though there is much evidence that carbaryl

(Sevin) provides better control, beginning about 10 days after petal fall and then three more applications spaced about 10 days apart. The other option is **bagging the individual apples** using the Japanese fruit bags when the apples reach about ½-inch diameter. This is no guarantee of control as the fruit may become infested before that size but they do provide reasonable control of this pest and many others as well as improve the shine to the fruit.



We should be shearing pines soon. Pines set only terminal buds, not along the new shoots as do spruce and fir, so the only time to shear them — removal of a portion of the current season's growth - is during the candle phase where the expanding new shoot is still tender. Removal of a portion of the shoot during this time period will still permit the new shoot to set buds. If the pine is sheared after the new growth has completed expansion and

has hardened, no buds will be set and the shoot will dieback after the older needles are shed, usually in a couple of years. Wait until the new needles along the candle are about ½ the size of the older needles and shear then.



Phomopsis twig blight (Phomopsis juniperovora) is showing up on juniper (cedar) plantings throughout the state. The typical symptoms of this disease is the current foliage at the branch tips turning pale green then light yellow-green, then reddish brown and finally ash gray. Many plants are exhibiting yellow-green tips at this time. Near the base of these infected twigs you can find small, black fruiting bodies of the fungus.

The symptoms, and even the fruiting bodies, can be easily confused with another common twig blight fungus *Kabatina juniperi* so it is always a good idea to send in a sample for diagnosis. Phomopsis twig blight can be managed with applications of a fungicide containing copper or propriconazole as the active ingredient applied now and continuing at two-week intervals until the spring growth matures usually by mid-June but it might be late June this year.

### Problems I am seeing in the field



Shot hole disease of apricot is showing up again this year. I looked at several apricots in the Mitchell area showing symptoms of the disease. Last year Dave, a forester with the South Dakota Department of Agriculture, sent in two great pictures of the disease, fruit and foliage. The disease symptoms on the fruit are brown lesions with a deep purple band. The

leaves are also filled with

holes, hence the name shot hole disease. If you look at the leaves after they first expand in the spring, you'd noticed these small lesions on the foliage but this infected tissue quickly drops out leaving these holes throughout the leaves. The best control is a fungicide containing chlorothalonil applied just as the buds expanding and repeated 10 days later.



### E-samples



I usually receive a few identification samples during the year and this past week the question was about this tree. The question was "What is the tree with the fragrant flowers?" This is common chokecherry (*Prunus virginiana*), a native, and very common, small tree noted for its white flowers and fruit. The fruit is edible, a little sour, but still tasty enough to eat right off the tree. The birds enjoy the fruit so don't expect to see

much – birds do not want to share.

What disease is killing all the spruce in the state? This is a common question across the state (and frequently addressed in the *Update*). While there are a multitude of pests that attack spruce, most do not kill the tree, merely weaken it. However, drought, that can become a tree killer. Most of the state was in a



drought from the summer of 2011 to just recently, and in addition to hot, dry summers we experienced a warm, dry winter (2011-2012). This stress resulted in many spruce exhibiting discolored needles that are dropping prematurely. The other common symptom is the very short shoot growth for the 2012 growing season (as well as shorter needles).

There are no sprays or fertilizers that can correct this problem. The spring rains may reverse the decline of many trees but others are too far gone – bare branches and dead twigs – to recover.



I got a great sample from the regional extension center in Mitchell. Someone came in with a branch off their mugo pine that was covered with "worms". These are the larvae to the European pine sawfly. The eggs are laid in slits along the needles (mom saws the slit hence the name sawfly) in late summer and the eggs hatch about the time PJM rhododendrons begin to bloom (which was last week in Sioux Falls and Mitchell). The larvae

feed in groups and when disturbed will rear up in unison – looks like one big bug rather than lots of little ones. The larvae feed on last year's needles, not the new growth, so rarely kill the plant but certainly a major stress. Treatment is an application of carbaryl (Sevin) while the larvae are young, better if done before they are even this size.

## Samples received

Corson County We are seeing cedars (junipers), pines and spruce dying in belts across the area. These are just scattered trees in the belts and while we were dry it has been raining now.

The spruce symptoms certainly appear to be more drought-related than an insect or a disease, nor was I able to find any signs of a pathogen in or on the sample. The shorter shoot growth for last year and the shedding of the needles are common symptoms that are often associated with drought. This is not the only stress that can cause these symptoms but it is the most common at this time.

The cedars (junipers) are also suffering from the drought and it would not surprise me if the cedar bark beetles have attacked these trees but this would not show up on the sample. The twigs submitted have tip dieback (which sometimes can be due to feeding by the adult cedar bark beetle) and the dying tips are due to phomopsis twig blight, a fungal disease. See the information on treatment near the top of these *Update*.

The pines twigs submitted are healthy and the terminal buds alive. The only problem was the discoloration of the needles, particularly near the tips, and this appears to be winterburn.

**Corson County** 



What is wrong with this Scotch pine? The needles are turning brown. Many of the Scotch pines in the belt are affected, but the ponderosa pines look fine.

I was not too sure of the problem until the samples came in (you can only tell so much from a picture). The problem is brown spot, a needle fungal disease that I rarely see in the state, but I remember seeing in

Christmas tree plantations back in Michigan. The disease was a common problem there on the shorter needled Scotch pine varieties and while it can affect ponderosa and other pines I rarely saw it on anything other than Scotch pine. The symptoms are bar-like gray to black spots on the needles that gradually turn a dark brown and often have a yellow margin. The control is an application of a fungicide containing chlorothalonil made when the new foliage is about half elongated and a second application made about 3 weeks later.

# Corson County This cedar and spruce appear to be dying. The spruce has curled tips and the junipers are turning brown.

The spruce tip curl occurred last year and appears to be frost related (see the last issue of the *Update* for more information). The browning on the junipers is due to phomopsis twig blight. See the information near the top of this Update for more information on management.

#### Turner County

#### What are these shrubs?

The one with the dark purplish leaves is the purpleleaf sand cherry (*Prunus x cistena*), one of N.E. Hansen's introductions from 1910 and just as poplar today. The purplish leaves and the white spring flowers are a common sight in South Dakota landscapes.

The one with the white flowers is a wild crabapple (*Malus*) that probably was a seed that germinated in dropped fruit, or more likely, one that passed through a critter.