Pest Update (May 27, 2015)

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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/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.

Plant Development…… 2
Treatments
Codling moth…….……..……... 2
Shearing pines……... 3
Phomopsis twig blight……... 3
Timely Topics
Ash anthracnose……..……...3
Hackberry leaf drop……..……..…... 4
E-samples
Buckeye rust……...…….……4
Basswood mites…….. 4
Samples received/site visits
Hutchinson County (red turpentine beetle)…….....5
Pennington County (dothistroma needle blight)……5

Plant development

The colder weather is slowing plant development but we are still way ahead of last year. The nannyberry (*Viburnum lentago*) are in full bloom now about a month sooner than last year! Many of the lilacs are nearly finished blooming and the pagoda dogwood flowers are just beginning to open. The recent rains and expected warmer temperatures will probably result in a rapid development of many plants during the next few weeks.

Pest treatments needed soon

Codling moth treatment time is coming up as the adults will soon be out laying eggs on the newly forming apples. Once the larvae hatch, they will burrow into the developing apple, usually near the base of the fruit, resulting in a trail of brown, powdery frass through the apple. This frass often extrudes from the entry hole as in the picture to the left. The treatment is usually Malathion, though there is much evidence that carbaryl (Sevin) provides better control. The first treatment begins about 10 to 20 days after petal fall, as the fruit just begins to form and then three more applications spaced about 10 days apart. This treatment will also control **plum curculio**, an insect that cannot usually get through the tough skin of an apple but the egg laying leaves the fruit dimpled and distorted. The picture to the right shows bird pecks and plum curculio damage.

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.

And finally, if you want to hang jugs of bad smelling liquid to attract codling moths and repel unwanted visitors consider mixing **molasses and water** in a 1:7 solution with a few drops of dishwashing soap. Pour this solution into a one-gallon milk jug with the top cut out of it and hang from the tree. The fermenting

mix is attractive to codling moths (as well as wasps and critters) and they may prefer this to your apples.

We should be shearing pines. Pines set only terminal buds, not along the new shoots as do spruce and fir, so the only time to shear them, removing a portion of the current season's shoot 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 allow the new shoot to set buds. If the pine is sheared after the new growth has completed expansion and hardened, no new 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 juniper-ovora*) is showing up on juniper (cedar) plantings throughout the state. The typical symptoms of this disease is the foliage on the newly expanded shoots turning light yellow-green. During the summer this infect tissue will turn reddish brown and finally ash gray by fall. 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 and should be applied now then continuing at two-week intervals until the new growth matures. This is usually by mid-June, but it might be late June this year consider the late start to the season.

Timely Topics

Ash anthracnose is beginning to show up and with all the concern in the news about emerald ash borer, it seems everyone is noticing anything wrong with their ash trees! This is a common fungal disease of ash and some years the disease can result in almost a completely defoliated tree by the middle of June. I have already seen ash trees will many of their leaves lying on the grass beneath them. The common symptoms of ash anthracnose are blotches and distortions to the newly expanding leaves and the

leaflets will often become distorted and have a slight curl. The infected leaflets will fall individually rather than as the whole leaf. Usually the tree produces a second crop of leaves by the end of June so the problem is short-lasting though this is a stress on the tree. The disease overwinters on the twigs and spreads to the leaves as they are expanding so the control time period has already passed and since the disease is such a minor threat to the tree generally no control is recommended. Another problem that we are seeing on ash is frost injury. The damage is similar to what you see with ash anthracnose except the leaf margins are blackening and the new leaflet are shriveled.

Hackberries are also creating some alarm from all the premature leaf fall. This is almost an annual event, though not always the same trees every year. The late frost this year seemed to add to the problem and there are trees that have lost most of their leaves by now. This is not a concern. The trees will appear a little thin right now but they will be producing new leaves very soon.

E-samples

I received this picture of a buckeye leaflet covered with reddish-orange spots. This is buckeye rust (*Puccinia andropogonis*), a different disease than guignardia leaf blotch (*Guignardia aesculi*). The difference between the two is the rust produces circular yellow spots, while the leaf blotch disease creates irregular shaped blotches that begin pale green and turn orange-brown. The buckeye rust alternates between the buckeye and native prairie grasses. The disease is not a serious problem but may result in premature defoliation as well as discolored leaves.

A "galling" problem. I have received several pictures of basswoods with these bumps on the leaves. These are caused by small eriophyid mites that form spindle galls, elongated galls on the top of the leaves. There is little that can, or should, be done for this problem. The galls rarely destroy enough leaf tissue to affect the tree's health. They are an aesthetic problem, not a serious health threat. There is also very little that can be done to reduce the problem as most insecticides provide minimal control of mites and even if they will work, the timing of the treatment is not known. Often these galls appear on a tree for several years and then just disappear.

Samples received/site visits

Hutchinson County **What are these beetles I am finding on my pine trees?**

This is the red turpentine beetle (*Dendroctonus valens*). The insect is the “big brother” to the mountain pine beetle and it also produces pitch tubes on the trunks of trees it infests. It has a much larger range than the mountain pine beetle, it can be found throughout western and northeastern North America , but, fortunately, does much less damage. The turpentine beetle attacks decline trees and those already stressed by construction, drought or old age. The insect and its pitch tubes are usually found on the lower 6 feet of the trunk. The insect can be managed by keeping the trees healthy and insecticide applications to the lower 6 feet of the trunk. Insecticides labelled for bark beetle control and containing carbaryl or permethrin can be applied in late April to prevent attacks. These sprays will not kill bark beetle already in the trees.

Pennington County **What is causing the needles to discolor on my pines?**

There are many reason for pine needles to become discolored. The entire needle turning yellow or straw colored is often a symptom to an infestation by bark beetles. Banding on the needles may be due to diseases, such as dothistroma needle blight, or disorders such as deicing salt or weather extremes. There are many other possibilities for discolored or banded needles. Dothistroma needle blight is a foliage disease that affects Austrian and ponderosa pines in South Dakota. Typical symptoms are reddish brown spots on the needles that develop into bands, often with a yellow margin. The needle surface below the band remains green while the tip browns. Small black, pimple-like, fruiting bodies can be found pushing up in or near the bands. Usually the symptoms are more common on the lower branches of the tree. Copper fungicides applied as the new growth expands (mid-May) and repeated in late June are the most common fungicide management. Ponderosa and Austrian pines should also receive a third application in mid-July if the rains persist.

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