

# Pest Update (June 11, 2014)

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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 product identified in this publication.

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## Plant development (Phenology) for the growing season

**Plant development.** We are still a little behind in plant development from most years. This week the Miss Kim lilacs in full bloom in Brookings as well as the vanhoutte spirea. These two plants often bloom in mid to late May.

## Treatments to be doing now



**Clearwing ash borer** treatment with an insecticide containing permethrin as an active ingredient can begin now. The bark must be sprayed to protect the tree as the insecticide will kill the adults 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 is in full bloom across the state. The picture shows the pupal skin of a clearwing ash borer that was left as the insect exited the tree.



**Codling moth treatment time** is upon us as the adult moths will be out laying eggs soon. Once the eggs hatch the larvae will burrow into the newly forming apple, usually near the base of the fruit, resulting in a trail through the apple filled with brown, powdery frass as seen in this picture taken in late summer. Treatment is usually malathion applications, though there is much evidence that carbaryl (Sevin) provides better control, beginning

about 10 days after petal fall with three more applications spaced about 10 days apart. In much of the state we are at least 10 days after petal fall so treatments need to begin now. 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. The bags may be obtained from Gardens Alive! at [www.gardensalive.com](http://www.gardensalive.com).

## Timely Topics



**This year has not been kind to ash.** We had a late frost in May that occurred just as ash trees were leafing out in much of the state. The frost resulted in browning or blackening of the newly emerging leaves, sometimes the entire leaf, other times only the margins. The newly expanding shoots also turned black and curled. The frost injury became noticeable within a day or two of the event but many folks did not take note of it until this past week – then the calls started. Most of the severely affected leaves are dropping or have already dropped and a new set of leaves will begin to develop within the next couple of weeks. Late frost injury on ash is not a common event but it does occur about every ten years or so. We had a similar late May frost in 2006 that defoliated almost all the ash in the northern half of the state. I remember driving from Aberdeen to Eagle Butte that May and almost all the ash were bare but they all set out a second flush in early June and by July you would never had guessed they had been defoliated earlier in the season.



Another injury, and one confused with frost injury, is **glyphosate drift**. Herbicides containing this active ingredient are being used in fields and if applied on windy days there may be drift onto adjacent trees. We usually do not see symptoms of this exposure until a week or so after the application. The most common symptom for drift is individual lesions where the spray droplets contacted the foliage. Defoliation can also occur if the drift is severe enough. While the symptoms are consistent with what is expected from glyphosate drift, the only way to tell is to take foliage samples and analyze them for the presences and concentration of this chemical.



Finally, if that were not enough, ashes were impacted by the **hail storm** that rolled through many areas of the state last week. There were some yards in Sioux Falls that looked like autumn there were so many leaves on the ground! As with frost, most of the damage is temporary and a new set of leaves will soon appear. This does not mean the trees are not stressed by the event, it does require energy to produce the second set of leaves, but usually trees are healthy enough and have sufficient reserves to produce the second flush. Occasionally trees that are already seriously declining do not recover.

**Hackberry tatters** pictures and samples are coming in from across the state. The question associated with the picture or sample is “*What did my neighbor spray to cause this?*” Tatter occurs almost every year to hackberries in our state though not always to the same trees. As mentioned in previous *Updates*, tatter is an odd collection of symptoms that are puzzling. The symptoms appear just after the leaves open with the expanding leaves having reduced interveinal tissue, almost a lacy appearance. There are a number of insects and disorders that can



create these symptoms including late frosts, insect skeletonizers and herbicide – all stressors that have been found associated with these symptoms this year – but there are some leaf injuries that cannot be explained by these common problems. Current though is that leaf tatters may be weather related injury caused possibly by cold injury while the leaves were still in the bud, the late May frost this spring is a

possible agent. The injury result in some tissue damage and this dead tissue drops out as the leaves open and expand. This is just a theory and it is likely that the actual cause is a combination of stressors rather than just one. Fortunately the leaf damage occurs early enough that the trees will produce more leaves still this season and the tatter problem appears to have little impact on the tree’s health.

## E-samples



**Winter kill on yews (*Taxus*)** was common this year. I have received numerous samples and pictures of browning yew foliage and it seems that the farther south you go in the state the more injury you can find. Obviously there are more yews in Yankton than there are in Aberdeen but the ones in Aberdeen seem to have fared better. Yew, while one of the nicest foundation evergreens due to its soft, green foliage and ability to thrive in light shade, are

also very touchy about their climate and soils. These plants are best suited to well-drained north exposures with good protection from drying winter winds.



**Zimmerman pine moth**, really a complex of three species, is a common problem in Austrian pines across the state and I can occasionally find it in ponderosa pines in lawns and windbreaks. Infested trees can be easily identified by the globs of reddish to cream colored pitch occurring near where the branches attach to the trunk. Infested trees will

also often suffer branch breakage. Treat the tree with an insecticide labeled for Zimmerman pine moth in mid-August. There are a number of products available to tree owners containing permethrin as the active ingredient

## **Samples received/site visits**

Brown County FL1400020

### **What is killing the ash?**

This appears to be herbicide injury, along with injury caused by the late May frost. I have had several reports from the northeastern part of the state about herbicide drift though as the article earlier in this issue of the *Update* points out the symptoms of the two are sometimes hard to separate. The spruce sent in with the ash appears to been hit by the frost as the terminal growth is blackened and curled.

Brown County FL1400027 **Why is the hackberry foliage looking so ragged?**

This is hackberry tatters discussed in detail earlier in this issue of the *Update*.

Faulk County **What is wrong with this eastern redcedar, bur oak and hackberry?**

The eastern redcedar has some twig dieback associated with kabitna twig blight but the extent of damage seen in the pictures send along with the sample indicates there are bigger problems. Usually when I see this much dieback on younger junipers in fabric I suspect that the fabric has girdled the stems. Check to be sure the fabric has not become imbedded in the stem, if this is not the case I will have to make a site visit to determine the cause.



The bur oak injury is most likely due to the late May frost. While oaks generally leaf out late enough to escape this type of injury, not this year! See more information on frost injury in the ash article in this issue of the *Update*.

The hackberry has leaf tatters. As mentioned in the article on tatters in this issue of the *Update*, it is not a fatal problem. However the trees will look ragged until new foliage appears later this summer.



Minnehaha County

**What is killing this maple tree?**



This is the work of the flatheaded apple tree borer. Rick Mayko, a forester with the South Dakota Department of Agriculture, and I managed to extract one adult (but it fell apart as we pried it out) and the trunk was riddled with the galleries created by other members of this species of beetle. The coppery black adults, who are emerging now, are about ½-inch long and oval shaped. Since they are somewhat flattened, hence the name flatheaded borer,

the exit holes they create to emerge are oval, rather than round. They are attracted to dying, young trees and while they attack a number of tree species, including apple, they prefer maples particularly red and silver maples and their hybrid, the freeman maples. This sample was brought into Rick's office by the tree owner who wondered what was attacking his tree and what could be done. The tree already had extensive trunk injury, probably from sunscald, a common problem with many of the freeman maple cultivars.

Minnehaha County FL1400004  
**tall blue spruce are dying.**

**The lower branches on this 25-foot**



This is cytospora canker, a disease so prevalent in blue spruce that it is hard to find an issue of the Update where it is NOT discussed! The disease is common on blue spruces that are more than 15 years in the landscape and those that are stressed. The combination of the after-effects of the drought and lots of mature spruce in the state has resulted in this being a very common disease.

Yankton County

**What is the problem on the leaves?**

The maple leaves are covered with tiny bladder galls that are the result of feeding by the maple bladder gall mite. This mite feeds on the underside of the leaf and the multi-colored "bumps" appears on the top. There is little that can be done to control the problem and despite the large number of galls, they do almost no harm to the tree.

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