

# Pest Update (August 29, 2018)

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John Ball, Forest Health Specialist SD Department of Agriculture,  
Extension Forester SD Cooperative Extension

Email: [john.ball@sdstate.edu](mailto:john.ball@sdstate.edu)

Phone: office 605-688-4737, cell 605-695-2503

Samples sent to: John Ball

Agronomy, Horticulture and Plant Science Department

rm 230, Berg Agricultural Hall, Box 2207A

South Dakota State University

Brookings, SD 57007-0996

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.

## 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 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.

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## Plant Development



The Dolgo crabapple fruit has matured and is ready to pick. This crabapple is a Russian introduction (1897) by Professor N.E. Hansen back when we were South Dakota State College. Since it's a Siberian introduction, it's one of the hardiest crabapples and about the first to bloom and have its fruit ripen. The 1 to 1½ -inch olive-shaped red fruits are edible and one of the best for cider. The cider is pink with a spicy flavor. This is also a great apple to make into wine.

## Timely Topics

### **Emerald ash borer update**

No adults were found last week, and I doubt if many are still flying. We are coming to the end of the summer ban on felling or pruning ash trees in Sioux Falls. Moving infested wood during the summer increases the possibility of adults emerging from it and into a new environment. Once we are past Labor Day all the emerald ash borers are snug within the tree as larvae and will remain inside the tree until next June when they emerge as adults.

This does not mean ash logs and brush within the quarantine area (all of Minnehaha County, northern Lincoln County, and northeastern Turner County) can be moved outside the quarantine area (at least not without a specific permit to do so). Just that the raw ash wood can be moved around within the area.



However, all ash wood cut this fall and winter should be burned or chipped before spring to avoid spreading the insect even more within the quarantine.

This also means the end for most treatment applications. The most effective time to treat is spring, once the leaves open until mid-summer (or later if we have rains as we did this year). Once we get to the end of the summer most treatments are less effective and should be delayed until the following spring.

**Bacterial blight on lilac is becoming a common problem this summer.** The shriveled, water-soaked leaves and blackening tips on lilacs are symptoms of the bacterium *Pseudomonas syringae*. The disease is appearing throughout the

state this late summer, not too surprising as it tends to appear more often in wet years. Bacterial blight can occur on all lilac, but it seems to be most common on Japanese tree lilacs and white-flowered common lilacs (but not the purple). The



disease has a very similar presentation as that of fireblight, another bacterial disease.

The disease begins as small, water-soaked spots on the leaves. These spots enlarge, and the associated shoot also turns black. Eventually the affected leaves wilt and turn brown or black with the shoot often showing a shepherd crook.

The only treatment is to remove infected branches at least one-foot beyond the any visible signs of the infection. This pruning should be done during dry weather when the leaves and shoots are not wet. The hand pruners should be sprayed with Lysol Disinfectant, a bleach solution or alcohol between cuts to avoid spreading the disease. The disease can also be managed with a spray of a copper containing fungicide applied in the spring just before bud break. While the disease is caused by a bacterium, not a fungus, this fungicide treatment seems to reduce the problem but should not be the only

treatment. Generally, infected lilac survives the disease, a branch or two may die each year or so but the plant will just grow around it.

## E-samples



This has been the year for plant bugs. The wet, humid conditions that much of the state has experienced were a great environment for plant bug populations to explode. The ash plant bud (discussed in the *Update* on July 25, 2018).

We have another plant bug that I have received several samples and pictures during the past week or so. It s the **boxelder bug** (*Boisea trivittata*). While this insect is known better as a nuisance, collecting on screens, windows and walls during the spring and fall, the nymphs and adults are sucking insects. They most often are found feeding on the developing seed, hence the proliferation of this insect near and on female

boxelder trees, but they also suck the sap from flowers and leaves. The sucking injury is referred to as stippling, where the insect has inserted their straw-like mouthpart into the developing leaf to withdraw sap.

Interestingly the most common pictures sent in this summer are from the Sensation boxelder (*Acer negundo* 'Sensation'), a male cultivar noted for its red foliage fall color. It has also been described as less attractive to boxelder bug since it does not produce seed but apparently the bugs still like the leaves.

Its too late for any effective treatment for this year's damage and I doubt if they will be as much of a problem next year. Regardless, its hard to kill a boxelder bug with insecticides, the nymphs and adults have a high tolerance to chemicals – these and cockroaches will rule the world after a nuclear winter.



There is a lot of interest in emerald ash borer and so everyone looks closely at any insects that might appear to be one. This is one of the look-alikes that was recently caught in a trap. This is another metallic wood-boring buprestid, so a close relative to the emerald ash borer, known as the **flatheaded appletree borer** (*Chrysobothris femorata*). This insect attacks a wide range of woody plants, but maples and apples are among

the favorites. They have a similar habit as the emerald ash borer, spending their larval stage tunneling just beneath the bark in meandering galleries. The biggest difference is the flathead appletree borer attacks stressed and declining trees while the emerald ash borer will attack any ash regardless of its health.

The flatheaded appletree borer adult is about the same length as the emerald ash borer, but they are broader and flatter. They have a slight ridge on the upper surface of the head while for the emerald ash borer it is slightly sunken. They both have a pronotum pointing backward on a lobe – not a common feature – probably the reason they are sometimes confused. However, they do differ in color. Emerald ash borer is a uniform coppery emerald green, while the

flatheaded appletree borer is a metallic gray to purple with several brassy spots on the wing covers.

## Sample received/site visits

Clay County

### Why are these maple trees dying?



This was a sample – a bag of dead leaves – but that did not tell us much, so I had to stop by. Once on the site, the problems were obvious. These were four Norway maples and one was dead, two were dying, and one was fine. You’ll notice from this picture that the maple at the top of the slope is fine and the one at the bottom (circled in yellow) is dead. These trees are in a new development where you are left with compacted subsoil for your “topsoil”, so you are starting with a poorly drained situation. Add in a wet summer and sump pump hoses discharging into the same location and you have the perfect combination to kill a tree. Add in the problem of planting too deep and its almost a certain death sentence for the trees.

The solution? First plant trees that are more tolerant of poorly drained soils such as American sycamore (*Platanus occidentalis*) or European alder (*Alnus glutinosa*), next plant the trees at the proper depth where the first permanent root is placed just beneath the soil surface and finally plant the trees on a slight berm.

Clay County

### Is this spray damage on my lilacs?



No, not likely. First, herbicide is more likely to injury a wide range of hosts, not just the lilacs. Second, the symptom pattern is consistent with what is commonly presented with bacterial blight. The shoots on many of the lilacs had wilted brown or blackened leaves. The shoots were also blackened and curled at the tips. While herbicides can also result in wilted leaves, a common symptom for exposure to growth regulator herbicides is a twisted or curled petiole. These plants did not have this characteristic symptom. See the article in this issue of the *Update* for more information on this disease.

Meade County

### What is damaging the needles on this ponderosa pine?

This is one I do not see every day, in fact it has been a few years. The damage on these needles is from the pine butterfly (*Neophasia menapia*). This is a butterfly, not a sawfly, and the adults look a lot like the common cabbage butterfly, white with black marking. The larvae do behave like sawflies, however, often chewing needles in colonies – several caterpillars hanging from the same needle. The green caterpillars feed on the older needles usually consuming only the upper half of the needles with the foliage often breaking off at this weak point.



The needle damage is already done at this point and the adults are out flying now. The insect usually is found at low densities throughout the forest, but we occasionally see outbreaks. These episodes result in pockets of defoliated trees with these occurring more often along the margins of the Black Hills.

Minnehaha County

### What is wrong with our fir? It's not looking good this year.



First, fir (*Abies*) are not the best trees for South Dakota. Our combination of hot summers and cold, windy winters are not the ideal growing environment for these trees. Despite this, we do have some nice trees in the area, particularly concolor fir (*Abies concolor*) and even a few Korean fir (*Abies koreana*).

We have balsam fir (*Abies balsamea*) and its variety the Canaan fir (*Abies balsamea var phanerolepis*) in the area as well and while they do survive they are living on the razor edge with any stress able to tip them. The stress in this instance appears to be the summer rains – monsoons might be a better description for Sioux Falls this year – that left the soil in a saturated condition. Firs do not like “wet feet” so this one is

suffering a little. It most likely will recover next year when the weather turns dry.

Turner County

**What is wrong with these cedars (junipers)?**

It appears to be phomopsis blight, but we are waiting to isolate the pathogen and will update next week.

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