

# Pest Update (December 12, 2018)

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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.

## 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

There should be no plant development now until spring – it's too cold! The cold snap we went through earlier in November was not too cold, about 9°F for the low in Sioux Falls, our woody plants can tolerate temperatures this cold by now. If we do not see minus zero

temperatures for a few more weeks, we should not see any cold injury due to the autumn or early winter temperatures. Unfortunately, it has not been cold enough yet to kill emerald ash borer either. We will be monitoring the Sioux Falls population this winter to see if we have much cold temperature borer mortality but that will take a string of -30°F days.

## Timely Topics



**A common call at this time of year is about firewood.** Now that the weather has turned a little colder, people are thinking about having a nice cozy fire at home. While you should have purchased firewood earlier this year, all those folks that do their taxes on April 15 are also just getting around to buying firewood. You can find ads for firewood from anywhere from \$75 to \$90 a pick-up load to as much as \$300 a cord delivered, but

the wood species, whether it is seasoned, and how the ‘load’ is measured all determine the value for a price.

A common question is “What is the best firewood?”. The different species vary in their heat value, color of the flame, fragrance and amount of sparks. Crabapple and apple have one of the prettiest flames and oaks and sugar maple have excellent coals, while cottonwood goes to ash fairly quickly. Pines produce a lot of sparks. Apple has a nice fragrance and some woods, such as catalpa and elm (if it had wetwood disease), might even have an odor (the burnt wood can smell like tomcat pee in the fireplace). The most important factor for many homeowners is not the color or fragrance but the heat so here is the ranking of fuelwoods in million BTUs per cord of seasoned wood.

Species	BTUs (million per cord)
Bur oak	25
Mulberry	25
Honeylocust	24
Sugar maple	24
Black walnut	22
Crabapple	21
Green ash	20
Hackberry	20
American elm	19
Boxelder	17
Ponderosa pine	15
Aspen	14
Cottonwood	14
Basswood	13

<sup>1</sup> BTU stands for British Thermal Unit, the unit of energy required to increase the temperature of one pound of water from 60 to 61°F. A gallon of propane is the equivalent of 100,000 BTU's so a cord of green ash has the heat equivalent of about 200 gallons of propane.

As you can see from this list, oak is going to generate almost twice the heat as basswood or cottonwood so you can expect to pay more for this wood. I have also seen some sales of 'mixed hardwood' containing mostly cottonwood with a little ash mixed in – it's mostly go'fer wood meaning you are always going for more as it burns quickly!

**You should always buy firewood by the cord or as a fraction of a cord.** A cord is a stack of wood 4 feet wide, 4 feet high and 8 feet long containing 128 cubic feet of space and about 70 to 80 cubic feet of solid wood. If you buy a cord you are purchasing a known quantity of wood. If you buy a pick-up load or face cord, you are going to get a range of possibilities. Most pick-ups hold about 1/5 to 1/3 cords, but this varies and a face cord usually is about 1/4 to 1/3 of a cord but again this can vary as well. You can find pick-up loads of wood being advertised for around \$75 while cords are going for \$280 or more. A pick-up load sounds cheaper than a cord but remember you probably are getting three or five times the amount of wood in a cord.

**Also be sure to buy seasoned firewood.** This is wood that has been split, stored off the ground, and protected from the elements for about a year. After this time it will have a moisture content of less than 28 percent so should burn long and hot rather than steaming and smoking in the fireplace. Dry firewood usually has cracks on the ends and is relatively light.



**Finally, and most important, do not moving ash from the quarantine area to other areas of the state!**

There are people already asking about hauling the wood from ash trees they are cutting down in Sioux Falls to their cabins in the Black Hills. NO! A very common way emerald ash borer moves from one community to the next is in firewood cut from infested trees. While the concern was once

people bringing ash firewood from outside the state. Now we have the additional concern of folks in Sioux Falls and the surrounding area moving ash wood to other areas of the state. Let's try to delay the arrival of this insect in other areas of the state as long as we can – do not bring ash firewood from trees cut in the quarantine to other areas of the state.

The quarantine boundary map is available at:

[http://emeraldashborerinsouthdakota.sd.gov/PDF/EMERGENCY\\_PLANT\\_PEST\\_Quarantine\\_Map.pdf](http://emeraldashborerinsouthdakota.sd.gov/PDF/EMERGENCY_PLANT_PEST_Quarantine_Map.pdf)

## E-samples



**Pines turning color – no need to panic.** Color changes on evergreens are common during the winter and it does not always related to desiccation injury. Scotch and white pine foliage may become yellowish green during the winter, a normal change, and return to their normal bluish-green again once the weather warms in the spring. Arborvitae can also turn from a bright green in summer to a very ugly brown during the winter months. Junipers may turn almost a plum purple during the winter but return to green the following summer. Usually the normal winter color change seen in some evergreen species is uniform along the foliage. Winter-burn is typically limited to the tips of needles.

**Firelight is a serious bacterial disease** for many of our best fruit trees and ornamentals. I received these pictures of an infected mountainash. Apple and pear are the most severely affected fruit trees. We also see the disease in our ornamental crabapples and mountainash trees. This disease is found throughout the state but the communities along the edge of the Black Hills seems to have most of the infected trees – blame it on the frequent hail storms that provide wounds for the disease to enter the tissue.

The disease overwinters in an infected tree, it cannot survive outside of its host during the dormant season. This means now is the time to go out and look for the cankers that are harboring the bacteria. If not removed, these cankers will begin to ooze the bacteria this spring. This oozing becomes the cause of infection during the spring and early summer as the bacterial ooze is carried by bees to the blossom. The bacteria may also be carried by wind-driven rain to hail-damaged foliage, through this is a more common means of transmission during the summer. Eliminating cankers now can reduce the chance of infection this coming year.

Winter is the best time to do this pruning as the bacterial is inactive due to the cold and they are few. As the temperatures begin to rise above 50°F the bacterial slowly becomes more active and multiplies rapidly at temperatures between 70 and 90°F.



Prune out the infected shoots now while the weather is cold and dry. Infected shoots are easily identified by the dry, shriveled leaves that may remain hanging from the blackened tips. These shoots and branches will have slightly sunken cankers that may appear wet or off-color. The shoot or branch must be cut at least 8 to 12 inches beyond the margin of the canker. The infected branch should always be pruned back to its point of origin, even if this distance is more than 12 inches. Do not leave stubs.

Pruning tools such as hand pruners and hand saws are excellent means of transmitting the bacteria between trees. Hand tools should be disinfected before moving from one tree to the next. There are several means of disinfecting pruning tools. The traditional ones are spraying the pruners with a 70% alcohol solution or dipping them into a 1:10 bleach solution.

A California study found that the most effective means of disinfecting pruning tools is to soak the pruners for one minute in full strength Clorox, Lysol or Pine-sol. Lysol is preferred among the three as it is less damaging to metal. Soaking may be impractical for a saw blade, so some recommend spraying the blades with Lysol Disinfectant or even using alcohol wipes. The teeth must be cleaned of all debris regardless of how the blade is disinfected so be very careful to avoid cuts wiping the blade clean as the teeth are very sharp!

## **Samples received/Site visits**

None received.

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