

# Pest Update (February 14-21, 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 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.

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## Plant Development

The winter weather is now in the tease phase where we have a few days of relatively warm weather (40s and 50s) followed by some intense cold (0 to 10). We are coming into the time where we begin to see a lot of "winter" injury on our marginally hardy trees. They have fulfilled their chilling requirement for the winter and only need some warm days to shake them out of a deep dormancy. However, the warmth is followed by cold and the deacclimated plants can no longer tolerate the cold. This is why I

recommend delaying pruning of our fruit trees till late March. If you prune now, we may still experience some cold in March that results in twig or branch dieback. Best to wait and only prune the tree once, rather than twice.

## Timely Topics

### Emerald ash borer update from Manitoba

I just returned from Winnipeg, the city with the most recent confirmation of emerald ash borer. The infested tree was discovered last late fall and this came as a real surprise as Winnipeg is hundreds of miles from the nearest infestations, Thunder Bay, Ontario and Duluth, Minnesota.



The “ground zero” tree was detected as the woodpeckers had peeled most of the bark away in search of the emerald ash borer larvae the feed just beneath the bark. Blonding, where the bark has been peeled away by birds is the best means of detecting an infested tree. It is a far better indicator than canopy decline – which is common already in our drought-stressed ash – as well as sprout and suckers which are also common sights and not associated with this borer.

The confirmation of this tree as a ‘positive’, infested by emerald ash borer, lead to a delimiting survey and it appears that the infestation is fairly small and concentrated. There have been about 12 tree discovered infested with most along a street in a residential area and two about 1,500 feet away in a park. The infestation appears to have started more than five years ago but more work on determining the initial infestation remains to be done this winter.

The unfortunate situation for Winnipeg is that ash is their more common tree, about 100,000 street and park trees with more along the river and surrounding homes. The next most common is elm and Dutch elm disease is impacted this segment of the urban forest. If you have not been to Winnipeg – truly a green oasis surrounded by prairie – you are missing a sight not seen in Midwestern communities for several decades, street lined with mature, majestic American elms. About 60 percent of the urban forest is within these two genera, ash and elm, and Winnipeg is beginning to pay the price of a reliance on too few trees choices.

This is not to blame the folks in Winnipeg for their misfortune. They, as with all the prairie states and provinces, have a limited choice when it comes to tree species. It is difficult to diversify the urban forest when there are relatively few genera adapted to this harsh environment, but we have to continue to try.

### So what new trees can we plant?

A common winter question is; "What new trees can I plant?" Everyone reading knows that the looming threat of emerald ash borer has taken green ash, black ash and white ash, all popular trees, off the list of trees to plant. Our climate and soils further limited what will grow here. However, there are still lots of possibilities available throughout the state.



There were a number of trees on the list that adapted to much of the state. These are hardy trees capable of surviving our cold winters and widely fluctuating spring and fall temperatures. The trees are also adapted to most soils, from neutral pH to alkaline and loam to clay soils. One of my favorites is **bur oak** (*Quercus macrocarpa*), a tree native to much of the state and one of our toughest trees (picture to the left). It is often overlooked for planting as there is a misconception that it is a slow growing tree. Not true, the tree can grow more than two feet a year, once established, in much of East River and the Black



Hills region. Another favorite oak of mine, the **swamp white oak** (*Q. bicolor*). The foliage on this oak has a light underside, a nice contrast against the glossy green top (as pictured to the right) when the wind blows. The tree is adapted to much of the state but should probably not be planted on soils that have a pH higher than about 7.5 or the leaves may become chlorotic.

Another choice that almost combines the best of both trees is the **Admiration<sup>R</sup> hybrid oak**, *Quercus x jackiana* 'Jefmir', a natural cross between a white oak (*Q. alba*) and the swamp white oak. It is a zone 2 tree having been discovered in Saskatoon, SK. It has an excellent growth rate, shaggy bark (similar to swamp white oak) and a golden autumn foliage color. It is bud grafted on a bur oak rootstock to reduce the problem with chlorosis which often occurs with swamp white oaks on alkaline soils. The tree has a mature height of 40 feet and is pyramidal.



Another excellent choice is the **Triumph elm** (*Ulmus* 'Morton Glossy'). This is a Dutch elm disease resistant Asian hybrid that is not likely to die from the disease. It has an upright arching habit, similar to our American elm, and the foliage while a little smaller than our elm is a bright shiny green. This tree and the **Accolade elm** (*Ulmus* 'Morton') both deserve further planting in our state as they are hardy and adapted to a wide range of soil conditions. The growth rate can be as great as several feet per year while it is young, probably our closest "instant shade" trees. The picture to the left shows an Accolade elm in a parking lot island two years after being planted as a six-foot whip. The

only drawback is these trees demand pruning/training while they are young to develop a good form. If they are neglected, they may become a big bush instead.

## E-samples

### The bunnies are coming!



Rabbits are the perennial critter problem in South Dakota and they starting to nibble on trees at this time of year. The best way to identify rabbit damage and separate it from that made by other mammals is rabbits usually chew bark off cleanly on larger trees up to a height of 18 to 20 inches above the snow line (under the snow line it is usually voles or mice doing the damage) and the feeding is most common on crabapples,

apples, honeylocust and maples, though few species are exempt from damage. Shrub damage is usually entire twigs or stem cut cleanly at a 45-degree angle. You'll often find small brown droppings on the snow near the affected plants.

What to do to avoid this problem? The best method is to remove any hiding cover; brush and woodpiles are perfect habitat for rabbits and should be removed. Valuable shrub beds can also be fenced off, but the fence, typically chicken wire, must be at least 3 feet tall – *above the snow line* – and tight with the ground. Many of the barrier fences that I see are working as the snow drifts are higher than the fences and make a nice shelter for the rabbits to eat in! Fencing is by far and away the best means of preventing rabbit damage.

Repellents work one of two ways, either as odor or taste. There is a product on the market called **Shake Away** that uses predator urine (fox or coyote) as a

means to discourage rabbits from entering an area. This used to be “home-made” but now is available as a commercial product that has an odor almost undetectable to humans. The reports are encouraging and it is probably worth trying. The **Pro-Tec Garlic sticks** are also used as an odor repellent and these clip-on products have been very effective in some South Dakota gardens though the results have been disappointing in other landscapes. **Liquid Fence deer and rabbit repellent** contains putrescent whole egg solids as well as garlic.



Capsaicin, the hot pepper taste, is also used as a repellent but I have found some rabbits actually begin to prefer this and will eat where you have sprayed if you do not put it on thick enough! **Bonide Hot Pepper Wax** contains capsaicin and is reported to be very effective. However, remember that repellents do not keep the rabbits out of an area, just discourage their feeding on certain plants. It may also only be

temporary and sometimes the rabbits just shy away for a few days before resuming their feeding.

Finally, don't live trap rabbits. No one else wants them either and most released rabbits die quickly in unfamiliar territory.

## Samples received

Perkins County **These borers were found inside pine cones that we collected. What are these borers?**



These are the larvae of the ponderosa pine coneworm (*Dioryctria auranticella*). *Dioryctria* are best known for the Zimmerman pine moths, borers that feed in the trunks of pines. However, there are *Dioryctria* that only infest the cones and this is one of them. These are generally more a curiosity than a problem, unless you are running a seed orchard. The larvae are the over-wintering stage and the adults, a small moth, usually emerge in midsummer.

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