

Pest Update (February 28-March 7, 2018)

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

Email: john.ball@sdsu.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 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

March is coming in like a lion with a winter storm crossing the state – typical for late winter weather in South Dakota. However, within the next few weeks spring will arrive and our trees and shrubs will turn from the brown sticks they are now to lush green. Well, mostly lush green. If the drought does not end soon in portions of our state, we may see brown sticks for the summer. This snow is a pain for driving, but it is providing some much needed moisture.

Timely Topics



The brief periods of warmer weather are resulting in folks venturing out to do a little training of their young trees. This is an excellent idea since potential problems can be eliminated easily while the tree is young and easy to prune. Young trees are also more tolerant of pruning and the pruning wound are much smaller so less concern about decay.

I received this picture of a young tree with the question; what should I prune? Occasionally young trees will have their terminals become stunted and a side branch quickly outgrowing it. These situations can result in the development of several competing leaders which often split out under wind or ice loading when the tree mature.

The solution here is to eliminate the stunted leader (at the dashed yellow arrow) and allow the upright branch to the right to become the new leader. While there will be a slight crook at this attachment for four or five years, eventual the stem will straighten. The branch to the left should not be removed, but pruned back (at the solid yellow arrow) so it will not compete with the new leader. It should be pruned back about one-third, with the cut made just above the side branch.

Some tree such as walnut may “bleed” from pruning wounds during warm spring days, just like maples and birch (and all can be tapped to make syrup). However, the sap flow is not harmful to the tree.

E-samples



Banded ash borer (*Neoclytus caprea*) adults are emerging from firewood and soon will also be emerging from dead and dying ash trees. The adults can be identified by their lines of fine, yellowish hairs on the thorax and four similar bands on the wing covers (elytra) with the first two almost meeting to form a circle.

This is not the emerald ash borer, that invasive insect that kills healthy ash trees, but a native insect that serves as nature's recycler. The banded ash borer, as well as its close cousin the redheaded ash borer (*N. acuminatus*), attack dead and dying ash and through the tunneling action of their larvae degrade the wood so the tree is returned to mulch on the forest floor much quicker.

The adults emerge in early spring – I have seen them swarming around recently felled trees in late March – and lay their eggs in bark fissures. Once the eggs hatch, the legless larvae bore through the bark into the phloem and sapwood where they chew away until fall then pupate and emerge as adults the following spring.

The banded ash borer is a rounded headed borer, the cross-section of the front of the larvae (and the tunnels they create) are round, while the emerald ash borer is a flatheaded borer as the larvae have a more compressed profile. The adult banded ash borers create an oval emergence hole from the bark while the emerald ash borer makes a crisp D-shaped hole.

There is no need to treat for banded ash borers as the trees they attack are "Zombie" trees, trees that are dead but don't know it yet.



Hackberry nipple gall was the concern of another tree owner. The email asked if these were killing their ash (obviously a picture taken last summer). No, as the tree is a hackberry (which has a simple leaf), not an ash (which has a compound leaf with 5 to 9 leaflets). And the nipple gall will not kill the hackberry. These galls are the product of the hackberry nipple gall-maker (*Pachypsylla celtidismamma*).

These insect survive the winter as adults and lay eggs on the expanding leaves in the spring. The nymphs soon hatch and begin feeding. As they feed they also inject a substance into the leaf that causes the leaf to grow the distinctively shaped gall around it. The nymph lives and feeds within this protective gall. At the end of the summer the nymphs emerge and become adults.

While it seems surprising, the galls do not harm the tree or significantly reduce their capability to manufacture food through photosynthesis. The galls just make the leaves look ugly and add to a little more raking as some of the infested leaves begin to fall a little earlier than the rest.

The other problem is the adults can become a nuisance to us. The adults, which resemble very tiny cicadas, will congregate on screen in early fall looking for a warm place to spend the winter. They are small enough to often fit through the

screen mesh so the tiny black adults can be found jumping around the house. Sometimes they also try to come in during a warm spring day so if you have hackberry trees in your yard you might see some this spring.

Samples received/Site visits

Moody County

Decay fungi on declining ash



This involved a site visit as the concern was dying ash trees that had this “growth” on them. The growth was the fungus *Perenniporia fraxinophila*, a decay fungus common on declining ash. It is sometimes referred to as ash conk, in reference to the conks, the spore-producing fruiting bodies, that may be seen on the upper trunk and branches. Some of these trees also had another stem-decay fungus, *Fomitiporia punctata*, that produces more compressed fruiting



structures that sometimes resemble more of an ooze, or thick whitish solidified liquid, on the stem.



These are stem-decay fungi that degrade the sapwood which can lead to upper trunk and branch failure. Infected trees often have numerous dead branches. The soft decayed wood is perfect material for birds to excavate for cavities so there will often be large holes in the upper trunks of infected trees.

There is nothing that can be done other than remove the heavily infected trees if they are near structures or where people (or vehicles) might be present. However, the appearance of numerous infected trees in the community is a good reminder that nearly 1/5 of the ash trees in our communities are over-mature and declining. These probably should be removed before emerald ash bore arrives.

These are not going to be good candidates for treatments once emerald ash borer is confirmed in a town. No one is going to try to save these trees, yet they still will become infested and produce more beetles that will move on to infest other trees. Once emerald ash borer arrives in a community, removal and disposal of ash wood will be subject to quarantines so removal of trees like this now makes sense.



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