Pest Update (February 26, 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/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.

Timely Topics

How cold is too cold for woody trees and shrubs? While it has been very cold for a longer period then most of us have seen for a while (or wish to see again), it has not been that tough on our plants. Most of our woody plants that we use in the state can tolerate temperatures to -30^{o}F or even -40^{o}F by mid-

winter. Most of the "winter" injury we see in this state is not the result of long periods of very cold temperatures but widely fluctuating temperature in late autumn and late winter. If we have winters where the temperatures warm into the 50^{o}Fs for a week or so in late winter and then drop to the subzero that is when we see injury. Most of the state it has stayed consistently cold so far this winter so there has been little injury yet, however we still have another month to go. The Black Hills region which has been some wide temperature swings this winter is probably the only place where marginally hardy plants may be experiencing some winter injury.

How about insect pests? The cold winter is not having much of an impact on mountain pine beetle larvae. Our inspections of infested trees a couple of weeks ago found very few dead larvae. The majority appeared very healthy and will no doubt survive this winter to continue their development to adults and emerge in July and August to infest new trees. Emerald ash borer, which has not been found in the state, may have been impacted by the cold that has occurred in much of the northeastern and north central United States. Several days of sustained cold (-20^{o}F) can kill the majority of larvae beneath the bark, however, it may not have been cold enough, long enough to kill many and even if 95 percent of the larvae are killed by the cold, the population can rebound very quickly.

Common hoptree (*Ptelea trifoliata*) is anything but common. It is rarely seen in windbreaks and is seen even less in the ornamental landscape. This large shrub or small tree will probably never become widely used as an ornamental, but the fruit is interesting, the flowers fragrant and the size (15 feet) is about right for many locations. The circular green samara resembles a flat disk and is a novelty when it appears in the autumn. The flowers are attractive as well and bloom in June, a time when there are few other trees in flower. The flowers are also fragrant, a pleasant scent that reminds one of fresh cut alfalfa, perfumes the air surround the tree. The autumn color is often lacking, sometimes only a pale yellow.

The tree is not native anywhere near the Northern Plains, coming no closer than the Mississippi River in Iowa. There are probably only scattered planting of this unusual tree along the southern portion of the region. Known specimens are found in as far north as northern half of North Dakota so it appears to be hardy. It is also a very tough tree. Common hoptree was also planted out in some

windbreak trials at the Highmore station and you can still find these small trees (about 15 feet tall) growing just find despite the lack of care. The plant has some possibilities as a large shrub, small tree in a belt but it has never seem to caught on which is too bad as we continue to rely on crabapples, hawthorns and pears for this role and while these are all good plants we need a little more diversity in our windbreaks.

The tree has almost no pest problems on the Northern Plains. However, it seems to be "rabbit candy" and young trees will need to be protected during the winter month for the first few years until the bark thickens. The tree is also a prolific seeder, as occurs with Amur maple, and small seedlings will continually come up beneath the parent. This might be a problem in some tidy landscapes but perhaps an advantage in some situations where a thicker screen is desired.

E-samples

I received this picture of a grove of dying boxelders. The concern was that the trees were breaking and falling over. When this happened the tree owner noticed large ants coming out of the decayed wood. The question was; were the ants killing the trees and what should they do?

Carpenter ants are the large (1/4 to ¾ inch) black ants you can find almost boiling out of a rotted trees when the tree is cut down. The ants like to build their nests in the hollows of old trees. They form colonies in this soft, rotted wood but are not the cause for the decay. They are merely taking advantage of this environment to build a home. Treating the carpenter ants will not stop the decay process in the tree so it is not advised to spray inside any cavity of the tree nor attempt to seal the opening with concrete, auto body fill or any other material.

The only real concern with carpenter ants is they can move from the rotted trees and form new colonies in the walls of nearby structures such as homes. Here they can form colonies of thousands of ants and being to degrade the wood. The colony of workers that move into a house wall can survive in dry as well as moist wood and it is possible to find them in even hollow doors. While the ants do not feed on wood, they will create tunnels through it and this damage can reduce the wood's strength.

Colonies can occur within 100 yards or more of a rotted tree, but if the tree is overhanging or touching the house it makes an easier path to the home (or infested firewood stacked again the house makes it even easier). Once at the house any crack will provide an entry way. If carpenter ants are found in the

house (they can be detected by sitting out a little tuna in water, not oil-packed, as carpenter ants love tuna and you can spot them trying to carry it back to their nest), it is best to hire a professional service to inspect and treat the home for the infestation.

Carpenter ants cannot sting people but they can bite and the bite is painful (they have powerful jaws) and burns due to the formic acid that is injected into the wound. Do not disturb them!

I received a picture and a question about what to do for trees that have been damaged by rabbits. Usually during late winter we start to see a lot of rabbit damaged trees and homeowners want to know if the trees are going to survive the injury or should they remove them. A good rule-of-thumb is if the bark damage is less than 1/3 the way around the trunk, the tree should recover. If the damage goes more than 2/3's the way around the trunk, the tree will most likely die within a year or two. Between 1/3 and 2/3's survival depends upon how healthy the tree was otherwise. If the damage was less than 1/3, carefully cut away any torn bark but do not treat the wound. Do not apply wound dressings or paint as neither of these products will promote healing or reduce the chance of decay. It is still a good time to apply rabbit repellents to prevent injury, we still have some winter to go!

Samples received

Brookings County **The wood in this boxelder is red, is this what killed it?**

Probably not, this is the phenomena known as red stain. This is staining of the tree's sapwood that occasionally appears on the bark as well. The red staining was once thought to be due to a fungus, *Fusarium retuculatum*, but further work has shown that it may be due to the non-specific host response to wounding. The red stained wood is highly prized by wood workers for vases and bowls but it does fade after time with exposure to light. The staining does not appear to reduce the structural integrity of the tree.