

Pest Update (Dec 17, 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/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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Timely Topics

Our South Dakota winters often come in bursts; cold, snowy weather followed by mild and dry. This is an especially common pattern in the Black Hills where temperatures often stay in the 40s and even 50s for a considerable time period only to be followed by intense cold. A common question from homeowners during the mild, dry spells is whether they should be watering their lawns, trees and shrubs.



Mild winter temperatures can result in injury or death to landscape plants. This is even more of a concern if the late summer and fall were dry, a pattern we experienced this year and have seen in the past. Several years ago we had a mild and dry winter that was preceded by a dry fall. The following spring many homeowners noticed some of their trees and shrubs were not leafing out. These plants had dehydrated during the warm, windy winter months. The problem was not unique to evergreens though these are very sensitive to water loss during the winter. The buds of deciduous plants were killed and many birches, lindens, and maples suffered extensive dieback.

The plants susceptible to winter drought injury include new lawns seeded or sodded after this past Labor Day as well as trees and shrubs planted after that date. Plants exposed to wind or receiving reflected heat from buildings are most at risk to becoming dehydrated during the winter.

Preparing for winter begins in autumn with watering during a dry August and September. Plant beds should also be mulched while the soils are still warm to provide an insulating layer and hold soil moisture. Dry, bare soils are prone to cracking during dry winters and these openings can expose and kill roots. Now winter has arrived, but there still are some steps we can take to help our landscape plants get through the winter.

Water can still be beneficial but only if the upper 6 to 8 inches of the soil are not frozen, if you cannot push a screwdriver easily into the soil it's probably too cold to absorb water. Only water when the air temperature is above 40^oF and water during mid-day so it will soak in before night. If the water puddles and freezes then discontinue watering as the soil has frozen and cannot absorb it. A film of ice covering lawns and groundcovers can suffocate the plants and result in more disease problems.



Plants are not losing water at a very high rate during the winter so watering does not have to be very often. Lawns may need to be watered every few weeks during the winter, and again, only if the soil is not frozen. Shrubs that were planted last fall may need only a few gallons of water once a month and for newly planted trees most will need only 5 to 10 gallons at watering.

Small evergreen groundcovers and shrubs that are not already covered with a protective layer of snow can be helped by placing a loose layer of brush over

them. Small arborvitae, boxwoods, yews and wintercreeper euonymus can be covered with pine boughs, a perfect use for the Christmas tree after the Holidays, to provide partial shading from the winter sun. The boughs do not have to cover the plants, only enough to block some of the sun.

If the winter turns cold and snowy then nothing further can or needs to be done to help the plants. But if we experience warm, dry winter weather, while it is nice for people, it can be tough on plants and watering may be advised.

E-samples



I received some pictures of dying silver maples and then an insect sample. The sample was from a different person but on the same tree species that was showing similar symptoms. The problem was occurring on declining silver maples and once the bark was pulled away (or fell off from woodpecker feeding), large galleries were seen. Large, almost pencil size, holes were peppered on the bark of these dying trees. The insect responsible for the holes and tunnels, but not for the tree's death, is the pigeon tremex horntail. This is a non-stinging wasp; the long "stinger" is not to poke people but to insert into the wood to lay eggs. The insect also transmits a white rot fungus that soon colonizes the wood and creates a food source for the developing

larvae. The white rot fungus is a decay fungus and it furthers the decline of the tree.



The horntail is not the reason the trees are declining, though its tunneling and the fungus it introduces do hasten the decline of the tree. The underlying problem is the silver maple. This is a species that is widely planted in South Dakota but is not well adapted to many sites and as a result suffers premature decline and death. The tree is best suited to moist, well-drained soils that have a neutral pH. Planting on dry or wet sites, or sites that are alkaline often result in decline and subsequent attack by insects and pathogen. The best management of these pests is to restrict planting of silver maple to the best sites, ones that allow the tree to thrive and is less susceptible to pests.

Samples received/site visits

Bennett County

Why are these 40 year old eastern redcedars declining? The trees begin to thin out then die.

Declining eastern redcedars were not an unusual scene this year. I have driven out to look at dead and dying redcedars in the southcentral and southwestern part of South Dakota several times this past summer. While the recent drought is the underlying cause of many of the declines it is not the only factor. This planting also had Transline herbicide applied as spot treatments for thistle. While herbicides are frequently involved in the decline of trees, it was probably not responsible for this decline. Transline is labelled for forestry use in eastern redcedar plantings to control weeds. What was unusual with these samples is that the shoots were recovering. Along the tips of declining shoots were short spurs of new growth. It appears from the samples that the trees were subject to a stress a couple of years back (most likely the drought) and were recovering. However, the decline was so severe in certain plants that survival was not possible. This pattern to drought-injury in redcedars is very common, were one or a few trees die, then a line of live trees before another patch of dying trees. An interesting investigation of this problem in Nebraska noted that there were slight soil differences between the pockets of dying and healthy redcedars, just enough difference in water retention to be the difference between life and death.

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