

Pest Update (November 18-25, 2020)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of plants or insects from other states. If you live outside of South Dakota and have a question, 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 as 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 for the growing season

The plants know it is Winter, but you would not know it from the weather. We are still seeing temperatures in the 50°s and even 60°s during the day. The little snow we did receive has melted and we are still in a drought. I expect to see more winter-burn come spring if the conditions do not change soon.

Timely Topics

Should trees and shrubs be watered during this warm Winter weather?

Considering how dry the Fall has been and the warmer than average temperatures we are experiencing across much of the state, it is not too surprising that this is a common question. The Black Hills is still seeing temperatures above 60°F

The purpose of Winter watering is to replace the soil moisture being absorbed by roots and lost back into the atmosphere through the leaves. If the water leaving the tree through transpiration cannot be replaced by water from the soil, plant tissue such as evergreen foliage and the buds on deciduous trees and shrubs can desiccate. Come spring as the temperatures warms and plants slip out of dormancy, the affected evergreen foliage turns reddish-brown. Deciduous plant buds become brittle and fail to open.



One key recommendation to reduce these problems is to water in August through October to help the plant better prepare for Winter. The old recommendation was to without water in the Fall to force the plant to dehydrate. But this is a bad idea. Going dormant for the Winter requires the plant to expand energy. The plant is not just reducing its water content, it is also producing its own antifreeze. If it is already suffering from water stress, the plant may not achieve as deep of dormancy as a healthy plant does.

Therefore, we recommended watering this past late Summer and early Fall. Now plants have gone dormant, but they can still transpire moisture on warm days. So, do we need to replace this moisture if the days are warm and dry and if so, how?

First, water loss is minimal during days with air temperatures less than 40°F and essentially stops when the temperatures dip much below 32°F, even for evergreens. Water movement up stems during winter days with air temperatures slightly above freezing does not occur with most woody plant species and is extremely slow in others. Finally, soil temperatures also influence root permeability and water uptake at 33°F may be only one-fifth of that at soil temperatures near 60° to 70°F.

The point is, water requirements for woody plants in Winter are generally minimal and while watering will not harm them it may be detrimental to the lawn beneath the tree or shrub if the water does not infiltrate into the soil. You do not want to form a layer of ice over the turf.

Still Winter watering may be a good practice. Some trees are sensitive to desiccation injury – birches, hawthorns, lindens, and maples – and they benefit from late Fall watering. Arborvitae and spruce are also prone to winter-burn and watering can help reduce this problem.

Location of the plant is also a part of the decision. Shrubs and small trees located along the south side of homes where the daytime air temperatures can reach into the 50°F and higher also benefit from watering.

The best way to water woody plants during the Winter is to only water when the soils are not frozen and the air temperatures are above 40°F. Restrict watering to mid-day so that the water will have an opportunity to soak into the soil before night. However if the trunk is still frozen, even this water will not be absorbed.

Emerald ash borer development



There is nothing new to report for emerald ash borer activity. The larvae are all nestled within the trees for their long winter nap. The annual Winter mortality survey will be conducted next March and unless we experience a string of days with -30°F weather this Winter I doubt if we will see many borers die from the cold. We did not see very cold temperatures last Winter, only in the -10's, and that led to a EAB population increase last Summer.

If development progresses normally, we should find pupae next May and the adults will begin to emerge in early June. I expect the ash tree mortality from EAB will be more noticeable in Sioux Falls next year.

E-samples

Ash bark beetle



As a reminder, emerald ash borer is not the only insect we can find burrowing into ash trees. The eastern (*Hylesinus aculeatus*) and western (*H. californicus*) ash bark beetles can be found throughout the state. These insects overwinter as adults in tunnels beneath the bark and in the spring emerge from tiny BB size holes. The holes may appear randomly along a branch or in circles around the branch.

These insects attack dying branches on otherwise healthy trees or will sometimes attack trunks of small, dying trees. They are taking advantage of a dying tree

rather than being the cause of the decline. There is no need to spray for this insect – it is not the problem.

Western conifer seed bug

Matthew, a South Dakota Department of Agriculture forester out in Hot Springs, sent in this picture. This appears to be the western conifer seed bug (*Leptoglossus occidentalis*). This insect feeds on the seeds and developing cones of conifers, hence the name “conifer seed”.



While the name says western, it now has moved as far east as New England so while I see it more in the Black Hills, it can show up just about anywhere in the state.

It does not bite people, but it wants to live with them during the Winter. The adults are poking around now looking for a place to spend the Winter and what better place than your house! They can become a nuisance as they crawl along

the windows on a sunny Winter day. If they are crawling around the house, carefully scoop them up with paper and toss outside. If you smash them in the house, they can give out an odor.

Samples received/Site visit

Brookings County

Silky nest on a Christmas tree branch



One of the nursery inspectors found this odd nest on a branch of a Christmas tree. The silk has the hollowed-out pupa of a butterfly or moth, cannot tell the species. The eggs on the silk may be stink bug eggs, more coincidental rather than having fed on the pupa. Regardless, not a Christmas tree problem.

We sometimes find hitchhikers on Christmas trees (like the owl on the Christmas tree for Rockefeller Center). These are rarely a problem, though sometimes a surprise in the house. Think of them as a extra Christmas present.

Clay County

Bubbles oozing out of tree

This is alcohol flux, also known as white flux. The appearance of this disease is as if foamy skim milk is bubbling out of the tree’s base. This is a yeast-type infection found in small surface trunk wounds near the ground. The foam has a sweet, alcohol-like smell but do not add it to the holiday punch bowl!



I usually see this disease during wet Springs, not the dry Falls. However, it does appear more often on stressed trees and the continuing dry conditions are a stress for many trees. The disease is most common on willows, but I more often see it on maples, such as this Autumn Blaze maple (*Acer x freemanii* 'Jeffersred').

The disease is sometimes associated with crown dieback, but the dieback may be due to the stress – drought in this instance – rather than the disease. I also find it on trees that appear healthy and just every few years, this foam will bubble out of their base – a built in still apparently.

Reviewed by Master Gardeners Dawnee Lebeau, Carrie Moore, and Bess Pallares

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