

Pest Update (September 6, 2017)

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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.

Plant Development.....	2
Emerald ash borer update.....	2
New emerald ash borer confirmation in southern Minnesota.....	2
Timely topic	
Locust borers appearing.....	3
Conifers are beginning their fall color season.....	3
It's time to harvest hazelnuts!.....	4
E-samples	
Tar spot on maple.....	4
Crown call on burning bush.....	4
Samples received / site visits	
Campbell County (declining Scotch pine).....	5
Davison County (transplant shock on bur oak).....	6
Marshall County (viburnum identification).....	6
Todd County (spruce spider mites).....	6

Plant development for the growing season



As the days become progressively shorter we are beginning to see the signs of autumn. There are a few trees with their leaves turning color and fruit is beginning to ripen on apples and crabapples. Despite the forecast for temperatures in the 80s for this coming weekend we probably will see cool weather return very quickly afterwards. There has even been talk of a frost in the northeast within a week or so – cold weather is coming!

Emerald ash borer - Update

This summer's confirmation of emerald ash borer in Buena Vista County in Iowa, a mere 80 miles from South Dakota, has heightening concern about its eventual presence in South Dakota. The day is certainly getting closer. Confirmed infestations are found in the Omaha, Nebraska and Minneapolis-St. Paul Minnesota metro areas and now in about half the counties of Iowa. The most ominous finding with the Alta, Iowa discovery is that it was about 100 miles from the closest known population in Iowa meaning someone moved infested wood there.

The *Update* will provide weekly information on the location of emerald ash borer confirmed in South Dakota or a bordering county of an adjacent state. ***At this time no emerald ash borer infested trees have been identified in the state or an adjacent county of a bordering state.*** The nearest infestations are highlighted in red; the Twin Cities of Minnesota; Buena Vista County and the counties in central Iowa and the Omaha-Council Bluff area of Nebraska and Iowa.



The new infestation confirmed in Welcome (Martin County) Minnesota was made from adult beetles collected in a purple panel trap. This is a little unusual as most new finds are from infested trees. This find also appears to be isolated, much as was the Alta, Iowa discovery, and far from the established infestations at the eastern end of

the state. This most likely means someone carried infested wood products, firewood or even logs, from an infested areas. There are probably a few infested trees in that area, but hopefully that's it for now. Regardless, this is a good reminder not to move ash wood, either firewood or logs, unless it has been treated specifically to kill any emerald ash borer larvae or pupae.

Timely Topics



Locust borer are beginning to appear.

The locust borer (*Megacyllene robiniae*) is a common insect associated with declining black locust trees. Black locust (*Robinia pseudoacacia*) is best known for its attractive and fragrant white flowers that hang in long chains from the tree in early summer. The tree should not be confused with the honeylocust (*Gleditsia triacanthos*) a tree that does not serve as a host for this insect. The adult, seen in the picture, is

very colorful and distinctive with a large yellow 'W' on the wing covers and yellow bands on the thorax of any otherwise black insect. The adults fly in late summer and can be found searching for egg-laying sites on the locust or feeding on flowers. The leg-less larva, found from late autumn to the following mid-summer, is about one inch long at maturity and is typically cream colored with a brown head. The best means of control, other than maintain the health of the tree by watering, is to apply a bark spray of a Permethrin product labels for borer now before the real flight begins.

The insect is most common in the 'Purple Robe' locust, a cultivar of black locust that has very attractive purplish flowers (and few seeds). Unfortunately, this same cultivar is very susceptible to the borer and most trees I have seen are killed before they are 10 years old



The annual drop of the older needles is beginning to occur throughout the state.

Every year, pines shed their third year needles as autumn approaches. If the weather is rainy and cloudy during September this event can pass without notice. However, if the weather stays dry and sunny, the older needles will turn almost a golden yellow before falling. This color change, and the amount of needles that are shed, is often seen with alarm by some tree owners, but it is just a natural process. The best way to tell if the discolored and falling needles are just normal fall needle drop look to see which needles are being shed. If it is the interior needles, this is the normal needle drop. If it is only the needles at the very tip of the twigs and branches, than this is most

likely the result of a fungal disease such as diplodia tip blight or insects.

It's time to be harvesting hazelnuts.

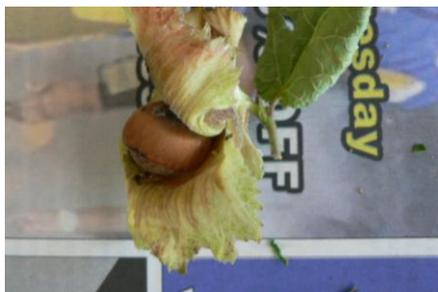


There is increasing interest in growing hazelnuts. Hazelnuts, also known as filberts, are native to South Dakota, mostly as the beaked hazel (*Corylus cornuta*) but there are also some American hazelnut (*C. americana*). These are small bushes about 3 to 4 feet tall growing in woody draws and along meadows adjacent to forest in the counties bordering Minnesota and the Black Hills. Both hazels do produce an edible nut though it is smaller than the ones you find at the store. The ones from the grocery store are from the European filbert (*C. avellana*) which has excellent nuts, but is not reliable hardy to our climate.

There are some hybrids of the American and European filberts available which combine the cold hardiness of the American with the larger, more flavorful nut of the European. Two that I have seen used in nut orchards are 'Carlola' and 'Delores'. Hazelnuts are high in protein, the healthy fatty acids and vitamins B and E



Regardless of which hazelnut you have or find, now is the time to begin harvest. Look for the clusters of papery, green husks beneath the leaves. The clusters of husks can be twisted off the twig fairly easy right now, just be sure not to break the twig in the process.



Once collected let the papery husks dry out. The best way is spread them out on a sheet of paper or towel. Make sure they are not stacked on top of one another, separate the husks so they can dry. After a couple of weeks, tear the husk off for the nut inside. If the nut is ripe it breaks away

very easy. Nuts that are not quite ripe will have the husk stick to the top of the nut. You can still eat the unripen nut, they just do not store well. Once husked, hazelnuts can last the winter in the shell. When you want a treat, just crack one open and enjoy!

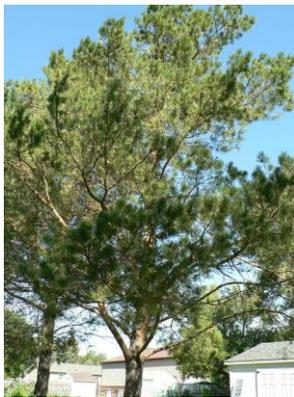


E-samples

I am still receiving pictures of tar spot. This fungal disease of maples, typically Freeman and red maple. The disease began as greenish-yellow spot in late June and then develops into these black tar-like structures we are seeing now. The remaining leaf tissue is sometimes chlorotic. The treatment for the disease is two-fold. First, a common recommendation is to remove and destroy the fallen leaves this autumn to reduce the overwintering fungus, usually not a practical treatment unless you are able to go through an entire neighborhood. Next year treat the tree with a Bordeaux mixture as the leaves expand and repeat the application about two weeks later. However, if we do not have a wet spring the disease is not likely to be severe.



I received a couple of pictures of what may be crown gall on burning bush (*Euonymus alata*). The galls – rough, woody tumors – occur just beneath the soil on burning bush and these can enlarge and choke off the flow of water and nutrients (these same galls occur just above the surface with *E. fortunei*). Infected shrubs sometimes start with a few branches presenting wilted leaves but this progresses to decline and death of the entire shrub within a few years. The disease is due to a bacterium *Agrobacterium tumefaciens*. The disease is common to many different woody plants including roses and poplars. There is not much that can be done to prevent or stop the disease. A healthy plant can usually tolerate the tumor so keeping the plant watered is a good means of prolonging its life. If a plant dies from the disease, dig up the shrub, the adjacent soil (just the soil attached to the roots) and dispose of both.



Samples received/site visits

Campbell County

Why is my Scotch pine dying?

This appears to be due to drought stress. The discoloration of the needles was not associated with any foliage or shoot pathogen. The color pattern to the needles – browning tips – is consistent with drought stress and the reduced annual growth this year is also an indication that the tree was suffering from a water deficit. However, considering how dry it was in the central part of the state this spring and summer this is not too surprising.

Davison County **What is wrong with this bur oak? It was planted this year and the leaves are much smaller than normal.**



A few of the leaves have some blister galls which are created by the feeding from a cynipid wasp. However, I suspect the reason for the smaller than normal leaves is related to transplant shock, either the tree was not water sufficiently after transplanting or the tree was planted bare-root and it was not sweated, hence leaf out was slow and uneven. Since the leaves were small, the tree has not been able to produce the amount of food it may

need and there is the possibility that it will not survive the winter. I suggest watering this fall and just wait to see how it does next spring.

Marshall County **What is this plant and can you eat the berries?**

The leaves were dried and crushed but the fruit was in good (but smelly) shape. This is the Cranberrybush viburnum (*Viburnum opulus* var *trilobum*). These native shrubs are now covered with clusters of bright red berries that you'll notice are not being quickly taken by the birds as the fruit is very sour! It is used in preserves and jams, but you'll have to add a lot of sugar!

Todd County **Why are the needles turning yellowish?**

The bronze stippling is due to feeding by the spruce spider mites. We are coming into the time to treat for these mites as they are cool season mites and are only active when the temperatures are below 85°F (and about the time silver maples turn red). Treatment is applications of 2% horticultural oils (but will turn a blue spruce green!) or an insecticide containing the active ingredient Acephate (this is a commonly available pesticide but it will only suppress the population, not eliminate them). All these will require two treatments spaced about 10 days apart. Commercial applicators have far more effective pesticides to use and I recommend treatment be conducted by them rather than the homeowner.

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