

Pest Update (August 30, 2017)

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

Email: john.ball@sdstate.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 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. Despite the forecast for temperatures in the 90s for this coming weekend we probably will see cool weather return very quickly afterwards.

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.

Timely Topics

Apple harvest will soon be beginning in the southern part of the state so it's a good time to review how to pick apples. First, apples do not continue to ripen once picked, they are at their peak of color and flavor when you take them from

the tree. So do not pick apples too early, but how can you tell? The first indicator the apple is ripe is the color. The apple should be having the normal coloration for the particular cultivar without pale or yellowish patches.



Next, if the color is right, the fruit should come easily off the branch. If you have to *pull* the fruit from the tree – it's too early. If the apple is ripe, you do not need to pull it off the tree, merely place the palm of your hand beneath the fruit and roll up the apple with a slight twist. The apple should snap off with little additional pressure. Once you picked the apple, place it in the bag, don't throw it, otherwise it may bruise. Place it in a cool spot at home – root cellars are perfect, but rare to find in modern homes so the refrigerator will do. Just don't wash the fruit until you are ready to eat it, they last longer that way.



The tree identification samples this week are common chokecherry (*Prunus virginiana*).

The questions are usually the same; what is it and is the fruit edible? The fruit is edible, in fact in 2007 it was voted as the state fruit of North Dakota (note: South Dakota does not have a state fruit). While North Dakota recognizes the importance to the fruit, it was also highly valued, and still is, by the Native American nations. *Capa sapa wi*, "black cherry moon" is the name the

Lakota gave to the month of August, the time when the fruit ripens. The Lakota would grind the fruit, pit and flesh together, into cakes and dry them in the sun. This was mixed with dried meat to form pemmican. The fruit now is usually made into jams and jellies. As a final note, the fruit is not always dark bluish black, on some trees it can be reddish-yellow to yellow. The yellow fruited trees are more common in the Northern Hills and there is one tree in the Memory Garden in Rapid City that had yellow fruit this August.



Most of the common chokecherries have finished fruiting by now so that "cherry" might not be a chokecherry. Common chokecherry trees can sometimes be confused with common buckthorn and this is a serious mistake if you are planning on picking the fruit. While common chokecherry fruit is edible, common buckthorn is not and works as a very, very powerful laxative. The way to separate

the two is chokecherry leaves are arranged alternately along the twig while common buckthorn are sub-opposite, where a leaf is almost opposite another leaf on the twig. The margin or edge to buckthorn leaves have tiny, rounded teeth while the chokecherry has small, sharply pointed teeth. Common

buckthorn also has a single thorn at the tip of each branch. The fruit differs in that chokecherry dark purple to black fruit is about 1/3 inch in diameter and contains a single large seed while buckthorn glossy black fruit is about 1/4 inch in diameter and contains two to four small seeds.

E-samples



Falling nutlets still attached to their leafy bract are a curiosity to some. I received this picture of these unribbed nutlets along with their bract. This is from a linden (*Tilia*). I usually receive a few calls and emails at this time of year from linden or basswood tree owners wondering about the small leaves that are beginning to drop at this time of year. They are another piece of litter to rake up and probably one of the biggest complains about these trees (though still only a minor concern). The fresh nutlets smell a little like chocolates when you break them open but that about how far the connection goes. They do not taste like chocolates so stick with peanut M&M's if you want a tasty nutty, chocolaty snack.



Honeylocust spider mite (*Platytetranychus multidigituli*) may be the agent responsible for the yellowing and bronzing of these leaflet. I have seen a number of honeylocust trees that had their leaves covered with this very small mite out in the Rapid City area this year. The honeylocust spider mite is a warm season mite and can produce a new generation of mites every 4 days during the heat of the summer. The mites suck the sap from the foliage which causes stippled white or yellow spots on the leaves and eventually the entire leaflet becomes yellow. The adults overwinter within crevices in the bark of the tree so one common treatment is spraying the tree with a dormant horticultural oil. This application can kill the adult mites but will have minimal impact on their natural enemies.



Pine tip moths (*Rhyacionia*) is infesting shoot tips on pines in northwestern South Dakota. There are two tip moths in South Dakota. The western pine tip moth (*R. bushnellii*) is the most common but occasionally the Nantucket pine tip moth (*R. frustrana*) can be found infesting pine shoot tips. The adults of the two insects are indistinguishable so misidentification of the Nantucket for the Western is always a possibility. However, regardless of the

species the damage is the same, the larvae mine the buds and tender new shoots which results in dead shoots which break off or crumple during the summer. There will also be dried resin on the buds and shoots.

The moths appear in the spring and the female lays eggs on the elongating shoots (but before the needles are fully formed). The major difference between the Western and the Nantucket tip moths is the Western has one generation per year while the Nantucket may have several. The Western tip moth usually overwinters as a pupae in the duff beneath the tree while the Nantucket tip moth passes winter as a pupae in the bud. Managing the first generation is the key and treatments include insecticides labelled for tip moth and include Acephate, Carbaryl, Permethrin or Spinosad as the active ingredient. The application is made just as shoots begin to expand in May. This usually is about mid-May. A second treatment can be made in early July if unsure whether the tip moth is the Western or Nantucket.

Samples received/site visits

Brown County

Why are the leaves of my walnut tree wilting?



Wilting walnut leaves at this time of year are a common symptom associated with thousand cankers disease (TCD). This is a disease caused by the fungus, *Geosmithia morbida* and the walnut twig beetle, *Pityophthorus juglandis*, which carries it to new hosts. This disease is responsible for the loss of thousands of walnuts in more western states since its appearance in Utah during the 1990s. It spread through the western states during the 2000s and then was found in some eastern states in 2010. It has not been confirmed in South Dakota or any of the adjacent states. Colorado is the closest state with known infected trees.

Fortunately for us it was not TCD. Unfortunately for the tree it had another problem, the oak twig borer (*Anelaphus parallelus*). This insect burrows into the branches and twigs of oaks, hickories and walnuts during the summer. The feeding severs the branch from the connecting trunk so the foliage quickly wilts and often the wilted branch falls off in late summer. The ground can sometimes be littered with these severed branches

Hand County

What kind of nut is this I found in the garden?

This is the fruit, husk and nut, to the black walnut (*Juglans nigra*). Most likely it was a gift from a squirrel as these small rodents frequently bury walnuts that they carry from other yards. If you have several and wants to plant them, the directions are in the last issue of the *Update*.

Hamlin County

What is wrong with these maple leaves?

The black, tar-like spots are due to the fungal disease called tar spot. See previous *Updates* for more information on the disease and its management, but generally we do not treat for this disease as it rarely reappears on the tree year after year.

Stanley County

What kind of tree is this?

It is not a tree, but it sometimes grows so large (12 feet) that people might mistake it for some kind of small tree. The plant is a mockorange (*Philadelphus coronaries*) a shrub known for its sweet, orange-scented blossoms that appear in early summer. Plants that are overgrown (almost trees) may become so crowded that they do not produce many flowers.

Yankton County

What is wrong with this spruce?

The sample had the newest needles removed and bunched together along the twig. One of the needles still had an insect inside. These are spruce needleminer. They are hard to treat at this time of year as they are still in the needle (hence the name miner). I recommend a high-pressure stream of water through the lower canopy of the trees next spring to knock off the miners as they leave the needle. You will need to rake up and dispose of all the fallen needles and miners after the 'washing' or they will crawl back up on the tree.

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