

Pest Update (March 6, 2013)

Vol. 11, no. 4

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

Email: john.ball@sdsu.edu

Phone: 605-688-4737

Samples sent to: John Ball
Plant Science Department
rm 230, Agriculture 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. **Walnut samples may not be sent from any location – please provide a picture!**

Available on the net at:

<http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx>

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

Making maple syrup.....	1
Trees for abandon feedlots.....	3

E-samples

Vole injury to trees.....	3
---------------------------	---

Samples received

Bon Homme County (discolored Scotch pine).....	4
--	---



Making maple syrup

I have had a few calls on how to tap a maple tree for syrup. This may be a good year for sap flow, much needed after the very poor run during last year's dry spring. Some recently broken branches on maples are already producing "sap icicles" with the frozen sap hanging from the

branches. The sap begins to run when the day temperatures are about 45 to 50°F, the nights between 15 and 25°F and the soils are moist (better still snow covered). It looks like we may have these conditions this spring.

Taps can be purchased on-line or you can make your own. A tap can be made by cutting ½ inch diameter copper tubing into a 3-inch length. Drill a hole of equal diameter about 2 inches into the tree, slanted slightly upward as you drill in for better flow, and tap the tubing about 1 ½ inch into the hole. The hole should be placed about 3 to 5 feet above the ground and the number of taps that can be placed into a tree is based upon the tree's diameter. A 10-inch diameter tree (diameter measured 4.5 feet above the ground) can have a single tap; a 20-inch diameter tree 2 taps but never put more than two taps regardless of the tree's size. Do not place taps in a tree less than 10-inches in diameter and do not tap trees that have cavities or other indicators of decay such as dying or dead branches. Only healthy maples with a full canopy should be selected for tapping.



Place a food-grade bucket beneath the tap, you'll probably have to hang the bucket from a nail and put a cover over most of the bucket to reduce debris from collecting in the sap (but be sure the sap can drip into the bucket).

Once the sap begins to flow it may continue for anywhere from two to six weeks. The early season's sap is light and low in sugars. As the season progresses the sap becomes darker and sweeter. The season ends when the buds are beginning to expand, the sap become cloudy and less sweet as well as an off-flavor. Once the season is over, remove the tap from the tree. Do not place anything into the hole and do not use the same hole or drill one directly above or below it the following year.

During the sap run a single tap may produce anywhere from 1/4 to 1 gallon of sap per day. If the tree is a sugar maple, the sap may contain anywhere from 2 to 6 percent sugar. The general rule for syrup is a ratio of 35 to 1 for sugar maple, meaning 35 gallons of sap will boil down to 1 gallon of syrup. Other maples are generally not as sweet and require more sap to produce the same quantity of syrup. Silver maples may require 40 or 50 gallons of sap to make 1 gallon of syrup (though there are silver maples with as sweet of sap as sugar maples). Boxelder, another maple species found in the region, has an 80 to 1 ratio, not too good but sweet enough that the Lakota use to tap these trees for the sugar.

Most folks are not going to produce enough sap to make syrup and boiling it down is not an easy task. The best use for the sap may be for your coffee or cooking. The raw sap can be kept for several days in the refrigerator. I like to use it for my coffee water in the morning. The raw sap adds just enough

sweetness for my taste and even gives a slight maple flavor to the coffee (and it's another excuse to drink a gallon of coffee a day).

Trees for abandon feedlots



I once was looking over a young planting of spruce where the trees were of uniform size except for a pocket near the center of the planting where the rows of trees were stunted and sparsely covered with needles. I asked the producer if the “pocket” was the former site of a feedlot. It turned out to be a feedlot site abandoned more than a decade ago.

Finding trees to plant over former feedlots or surrounding existing ones is not an easy task. The high salt content to the soils makes it difficult to start many tree seedlings and can even affect the growth of larger trees. I often find the salt content, as measured by soil conductivity, 5.8 dS/m or greater. There are very few trees and shrubs that tolerant this high of salt level, particularly as seedlings. Some of the most salt-tolerant trees and shrubs are:

<u>Scientific name</u>	<u>Common name</u>
<i>Caragana arborescens</i>	Peashrub
<i>Celtis occidentalis</i>	Hackberry
<i>Crataegus</i>	Hawthorn
<i>Gleditisa triacanthos</i>	Honeylocust
<i>Juniperus scopulorum</i>	Rocky Mountain juniper
<i>Pinus mugo</i>	Mugo pine
<i>Pinus nigra</i>	Austrian pine
<i>Ptelea trifoliata</i>	Hoptree
<i>Potentilla fruticosa</i>	Potentilla

The two most salt-tolerant woody plants are Russian-olive and tamarix. Russian-olive can become invasive so plantings are being discouraged and tamarix *is* invasive and plantings are no longer allowed.

E-samples



Now that the snow is melting around some planting you may see tiny chew marks on the shrubs. This is often the work of voles, small mouse-like rodents (hence the other name meadow mice) that are common in much of the state. As the snow melts away you may see surface runways throughout your shelterbelt. Not a good sign, and if you do see the runways, check for chewing around the base of young trees. I often find the injury mostly on

evergreens, seems junipers and pines are a favorite. The gnawing is irregular, with individual tooth marks less than 1/16-inch wide and not much longer. They will be different from rabbits which make a wider tooth mark, about 1/8-inch wide, and more regular. Unfortunately once the tree is girdled there is nothing that can be done to save it. Trees that have lost more than 1/3 of the bark around a stem should be removed as they are not likely to survive the injury.

Samples received



Bon Homme County

This is from a Scotch pine that is turning yellow, the pine tree next to it is also turning yellow. What might be the problem?

It may be nothing. Many Scotch pine have their needles turn yellow during the winter. This has long been a frustrating fact to Christmas tree growers who have to spray their Scotch pines with colorant to have green trees for the holidays. The sample that came in was otherwise healthy, the needles were succulent as well as the twig, and the only problem was the off-color needles. Unless there are other problems associated with the trees, i.e. dead needles on part of the tree or branches or dead branches, I suspect the tree will turn green again this spring.