

Pest Update (March 2, 2016)

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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.

Timely Topics

Pruning out fire blight.....	1
Pruning shrubs.....	3
E-samples	
Bur oak, galls and woodpeckers.....	5
Browsing on pine needles.....	6
Samples received	
Hyde County (black knot).....	6

Timely topics

While we received a little snow this past week it is rapidly melting now that the daytime temperatures are staying above freezing. Spring is almost upon us so now is the time to complete some of the last minute pruning chores.

Pruning out fire blight



The window for pruning out fire blight infection is rapidly closing. Firelight is a serious bacterial disease for many of our best fruit trees and ornamentals. Apples, crabapples and pears are the most severely affected fruit trees and growers must be constantly vigilant for signs of the disease. This native disease, not one we can blame as an introduction, is found throughout the state but the communities along the edge of the Black Hills seems to have trees with most of the problem.

The disease overwinters in an infected tree, it cannot survive outside of its host during the dormant season. This means now is the time to go out and look for the cankers that are harboring the bacteria. If not removed, these cankers will begin to ooze the bacteria this spring. This oozing becomes the cause of infection during the spring and early summer as the bacterial ooze is carried by bees to the blossom. The bacteria may also be carried by wind-driven rain to hail-damaged foliage, through this is a more common means of transmission during the summer. Eliminating cankers now can reduce the chance of infection this coming year.

Winter is the best time to do this pruning as the bacterial is inactive due to the cold and they are few in number. As the temperatures begin to rise above 50°F the bacterial slowly becomes more active and multiples rapidly at temperatures between 70 and 90°F.

Prune out the infected shoots now while the weather is cool and dry. Infected shoots are easily identified by the dry, shriveled leaves that remain hanging from the blackened tips. These shoots and branches will have slightly sunken cankers that may appear wet or off-color. The shoot or branch must be cut at least 8 to 12 inches beyond the margin of the canker. The infected branch should always be pruned back to its point of origin, even if this distance is more than 12 inches. Do not leave stubs.



Pruning tools such as hand pruners and hand saws are excellent means of transmitting the bacteria between trees. Hand tools should be disinfected before moving from one tree to the next. There are a number of means of disinfecting

pruning tools. The traditional means are spraying the pruners with a 70% alcohol solution or dipping them into a 1:10 bleach solution. A California study found that



the most effective means of disinfecting pruning tools is to soak the pruners for one minute in full strength Clorox, Lysol or Pine-sol. Lysol is preferred among the three as it is less damaging to metal. Soaking may be impractical for saw blades so some recommend spraying the blades with Lysol Disinfectant or even using alcohol wipes. The teeth must be cleaned of all debris regardless of how the blade is disinfected so be very

careful to avoid cuts wiping the blade clean as the teeth are very sharp!

Pruning Flowering Shrubs

I was asked if it's too late to prune shrubs. Now is the time to prune your summer flowering shrubs (but you need to wait a little longer for the spring flowering ones). Pruning not only benefits flowering but can also enhance bark color for shrubs with colorful canes. The dogwoods, prized for their vibrant red or yellow canes, can become thickets of gray stems if pruning is neglected since the younger canes have the brightest colors.



Most shrubs arise from multiple canes, which are long, relatively unbranched stems. The best means of maintaining an attractive and natural appearance to these shrubs is to prune with heading cuts. This is a type of pruning cut that stubs off the cane at about 2-inches above the ground. These heading cuts result in the formation of numerous new shoots that arise just below the cut and quickly grow as long canes. The heading cuts should be made

cleanly and straight across the cane; cutting at an angle is not necessary.

While flowering is enhanced by this pruning, the timing is critical. Spring-flowering shrubs bloom from flower buds formed the previous summer. These shrubs should be pruned immediately after they finish flowering. If they are pruned now the flower buds will be removed and you will not have flowers this year. Summer-flowering shrubs bloom from flower buds formed during the current year, meaning their flower buds are formed the same season they bloom. Summer-flowering shrubs should be pruned during the dormant season, usually just before bud-break, sometime during March.

While shrub pruning is accomplished by heading cut, the number of canes removed may varies depending on the objective. If the shrub is overgrown,

almost choked-out by an excessive number of canes and flowering poorly, all the canes can be pruned out, a technique referred to as rejuvenation pruning. Rejuvenation pruning can be done every dormant season for low-growing summer-flowering shrubs such as bumalda spireas and potentillas.

Overgrown shrubs, regardless of size or flowering time, can be pruned in this manner. However, pruning a 15-foot common lilac to 2 inches will mean forfeiting flowers for several years while the plant recovers. Loppers are the best tools to make these cuts as the long handles provide the leverage to cut through thick canes. When pruning small canes, those less than 1/2-inch in diameter, a hand-pruner may be used.

If the plant is not overgrown, then renewal pruning can be applied. Renewal pruning involves removal of about 1/5 to 1/3 of the oldest and largest canes by heading cuts. If this task is performed annually, than over a three to five-year time period, the entire shrub will be completely renewed. The season to do renewal pruning depends whether the shrub is spring or summer flowering. Spring-flowering shrubs should be renewal-pruned right after they finish flowering. Summer-flowering shrubs should be pruned during the dormant season.

The following are two lists of common shrubs by blooming time.

List of common spring-flowering shrubs

Barberry (*Berberis*)
Chokeberry (*Aronia*)
Dogwood (*Cornus*)
Forsythia (*Forsythia*)
Mockorange (*Philadelphus*)
Ninebark (*Physocarpus*)
Lilac (*Syringa*, except late lilac *Syringa villosa*)
Slender deutzia (*Deutzia*)
Spring-flowering spireas (Birchleaf spirea, *Spiraea betulifolia*, Nippon spirea, *S. nipponica*, Bridalwreath spirea, *S. prunifolia* and Vanhoutte spirea, *S. x vanhouttei*)
Viburnum (*Viburnum*)
Weigela (*Weigela*)

List of common summer-flowering shrubs

Bush-honeysuckle (*Diervilla*)
Hydrangea (*Hydrangea* except Bigleaf hydrangea, *H. macrophylla* cultivars may have spring and summer flowers)
Late lilac (*Syringa villosa*)
Potentilla (*Potentilla*)

Falsespirea (*Sorbaria*)
Smokebush (*Cotinus*)

E-samples



I received this picture with the question; “Are the woodpeckers using the tree to break open seeds and is that causing the damage?” No, the woodpeckers are not cracking the bark but drilling into the bark in search of these small larvae of the **gall wasp** *Callirhytis flavipes*. During the winter the small, white larvae are found within the inner bark of the branches and twigs of mature oak trees and the trunks of young trees. The gall wasps emerge in the spring as adults and move to the newly expanded leaves where they insert eggs into the midrib, the central vein of the leaf. Once the eggs hatch, the larvae form a gall on the vein and live out their short lives within this structure. Adults emerge later in the season and lay eggs on the twigs and branches.



The galls formed by this gall wasp are not particularly harmful to the tree, no more than the many other galls that form on oaks. What makes this gall wasp a problem is the woodpeckers that feed on the larvae during the winter. The woodpeckers can shred most of the bark from young trees, enough that the trees are be killed by this injury. The trees that are not killed by the woodpecker activity, often have the tops killed back enough that

the trees become misshaped and of little value as a windbreak tree.

Management of the problem is difficult. Some people have tried protecting their small oaks with Tanglefoot Bird Repellent[®] on the trunk. This is a sticky material that comes in a caulking tube that can be smeared on the trunk to discourage woodpeckers. This is a very time-consuming task and must be repeated every year. Insecticides to kill the gall wasps have not be completely evaluated yet. The timing for insecticide sprays is critical and the gall wasps are flying for an extended time period in the spring and late summer. Injecting insecticides to kill the larvae as they feed have not proved successful yet for *Callirhytis*. Not all trees are infested by the gall wasps. It is very common to find several bur oaks

growing near one another and only one tree infested by the wasps. The bark on the infested trees appears to be less furrowed than the uninjured tree but this is difficult to evaluate as the woodpeckers have often removed so much bark it is hard to tell the origin texture.



I also received two pictures of a **small pine that has been browsed**. Deer and rabbits will feed on pine and spruce needles. They can be tasty at times and I have read that some people feed the needles to their old Christmas tree to their pet bunnies (though apparently the needles can give rabbits a tummy ache if fed too many). Deer and rabbit browsing may look similar but upon closer inspection rabbits cut tissue cleanly while deer twist and tear plant tissue so the ends are a little more ragged. Deer browsing is also often higher off the ground but if the snow drifts and hardens I have seen



rabbits browse the tops of 10-foot apple trees in winter!

Samples received



Hyde County

What is this growth on a cherry?

This is a fungal disease known as Black Knot. The infection results in this thick black, swellings on the twigs and branches of cherry and plum trees. The swelling takes two years to develop so usually by the time to start to see the knots on the tree it's too late for pruning. The first year infections on the twigs sometime is undetectable or barely detectable, only a slight swelling. The second year the more visible knots appear. Homeowners that prune out every knot during the dormant season are often surprised and disappointed to see the growths reappear. There also seems to be a wide variation in susceptibility but once the knots begin to appear on a tree it seems that despite pruning them off, they quickly reappear. Its best just to basal prune a severely infected tree, in other words, cut it down.

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