

Pest Update (September 10, 2014)

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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
Plant Science Department
rm 230, 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. **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.

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Timely Topics



Winter returned to western South Dakota a little early this fall as can be seen from this picture Mary, the Extension consumer horticulture field specialist, took of her yard in Rapid City. Thursday much of the Black Hills region received snow and experienced freezing temperatures, even some travel warning! Fortunately the snow quickly melted and the wide spread tree damage and power outages that occurred last October were not repeated.

Black Hills gardeners did have to quickly harvest what they could from their gardens and cover what they could not pick. Since the spring started late and the summer was fairly cool, many gardeners were just beginning to harvest tomatoes and other crops and this cold snap may have put an end to any further production. This was not a good year for gardening.



What will the cold do to apples? You cannot bring a fruit tree into the house and most trees were too large to cover so the fruit had to tolerate the cold snap without any more protection than the surrounding leaves in the canopy. Fortunately most fruits, cherries, plums and peaches, ripen in July and August so the fruit has long been picked. Pear harvest usually starts in late August and many, but not all, pears have also been picked. Apples are the real concern as many cultivars do not fully ripen until late September and even October. There are many trees still loaded with fruit and I have received numerous calls from apple owners wondering what to do.

First, apple fruit can withstand at least 4 hours of temperatures in the 28^o to 30^oF range without serious injury. The sugars and other constituents of the fruit lower the freezing point of the flesh and they can recover just fine. You can tell if the fruit is frozen by a simple test: stick your finger nail through the skin of an apple. If the skin “pops” and juice comes out, it did not freeze. If the skin is hard and it feels like you are poking a Popsicle, then it probably is frozen. If it is frozen, do not pick or handle the fruit. Instead allow the apples to thaw on the tree as our temperatures warm today and over the weekend. If the apples did not freeze they will continue to ripen and can be picked at their normal time. There may still be some freeze injury so it might not be a bad idea to pick a few apples early

next week and see if the flesh has turned brown. If oxidation has developed, the fruit received freeze injury and further ripening may not occur. Even if the injured fruit left on the tree continues to ripen, it may not store as well as it normally would.



Any good news to the Black Hills cold snap? Many folks in the Black Hills may be wondering if the cold temperatures were enough to kill the mountain pine beetle. Areas in the Black Hills did have temperatures in the low 20^osF during the last night and some places the temperatures did not rise above freezing for at least a day. Young mountain pine beetle larvae are very susceptible to cold injury. They have to prepare for cold

winter temperatures by voiding their gut to prevent icing and then gradually accumulate glycerol, a natural anti-freeze, to allow their bodies to survive sub-freezing temperatures. The larvae are still in the feeding stage at this time of year and have not yet begun to prepare for the winter cold. The air temperatures many areas of the Black Hills experienced in the past days were cold enough to kill the beetles *but* the larvae were not exposure to the air temperatures as they were snug and warm beneath the insulating bark. We probably would need several more days of cold temperature for the cold to penetrate the bark and it looks like we are going to be back into the 60^os, even 80^oF by mid-week. Most likely this cold snap will have very little impact on the mountain pine beetle. Nuts!

E-samples



Bacterial blight of lilac. The shriveled, water-soaked leaves and blackening tips on lilacs are common symptoms of the bacterium *Pseudomonas syringae*. The disease is appearing throughout the state this late summer and fall, not too surprising as it tends to appear more often in years with cool, wet springs. Bacterial blight can occur on all lilac but it seems to be most common on Japanese tree lilacs and white-flowered common lilacs (but not the purple). The only control is to remove infected branches at least one-foot lower than the symptoms and do this pruning during dry weather. The

hand pruners should be sprayed with Lysol Disinfectant between cuts to avoid spreading the disease. The disease can also be managed with a spray of a copper containing fungicide made in the spring at bud break. While the disease is

caused by a bacterium, not a fungus, this treatment seems to help. Generally the infected lilac survives the disease but a branch or two may die each year or so but the plant will just grow around it.



Fall webworm nests are appearing on many trees this year. You can see the nests on trees through the state. If you tear open one of these nests you'll find fall webworm larvae. The yellow to brown, tufted, larvae are about 1/2-inch long and actively moving within, and beyond, the nest at this time. The webworm differs from tent caterpillars in time of feeding (spring for tent caterpillars and late summer for webworms) and where they form their

nests (interior, near branch crotches, for tent caterpillars and exterior, out on the branches for webworms). The fall webworm favorite foods are cottonwoods, chokecherries and walnut, but almost any hardwood tree species will do. It is a myth that since they are feeding on leaves that will soon drop anyway that no damage is caused – the next month or so is a time of high productive for these leaves and the loss of them will leave the tree going into winter with fewer reserves. The larvae have mostly finished their feeding this fall so the best treatment may be to wait until next May or June and apply a soil treatment of a product containing imidacloprid as the active ingredient. This will be absorbed by the tree and kill the young larvae as they begin feeding on the leaves next summer.



Honeysuckle aphid damage is appearing on Tatarian honeysuckles in many areas. The aphid, *Hyadaphis tataricae*, is another Asian import that was accidentally introduced to this country back in the 1980s. Tatarian honeysuckle was considered a "pest-free" shrub until the arrival of these insects but soon afterwards entire windbreaks and ornamental plantings of this plant were covered with stunted shoot tips that clustered into witches' brooms. These brooms do not

kill the plant but are unsightly, particularly during the winter when the stunted branch tips are most noticeable. The aphids feed in large colonies by sucking the sap from the tender shoot tips. Management of this insect can be difficult. One recommendation, but only if you have a lot of time, is to remove the overwintering eggs by pruning out all the witches' brooms during the winter. This can be followed up by a dormant oil spray applied to the shrub just before bud break to kill any eggs you might have missed.

Samples received/site visits

Minnehaha County

Is this fire blight on the apple tree?

Yes, this is a common disease of apple, though not as prevalent as apple scab. The only real management for this time of year is to prune out infected shoots, at least several inches below the symptoms, shriveled and darkened bark, and at the junction between the infected shoot and the trunk.

McCook County
leaves?

What is wrong with these maple

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

Perkins County

Browning ponderosa pine needles; About 30 of these pines started to turn brown during this past summer and this occurred after an aerial applicator sprayed an adjacent field. We suspect herbicide.

The twigs do show a diplodia tip blight infection and this alone could be responsible for the symptoms. It is difficult to determine if a herbicide is a causal agent unless we know what herbicide is suspected of doing the damage. Many herbicides cause similar symptoms and there is no universal test to detect all possible chemicals. The foliage and twigs also are not showing any symptoms that I typically see for most herbicide drift problems on pine. While I will investigate further, I suggest you contact the SD Department of Agriculture and file a pesticide complaint. A discussion on this procedure was in the July 23 issue of the *Update*.

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