Pest Update (July 15, 2015)

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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.

Plant development

The Amur maackias are in full bloom in Brookings. Plant development is a little ahead of normal now as the Amur maackias are in bloom about two weeks early.

Timely topics

Dutch elm disease (*Ophiostoma novo-ulmi*) reports are starting to come in again. About a month ago we received numerous reports of entire American elms flagging suddenly throughout the canopy. Many of these trees had been close (less than 40 feet) from other elms that died last year from the disease. Elms can root graft and this is a common means for the disease to move from tree to tree. The root grafts are most common with elms that are standing within 35 to 50 feet of one another. If the disease is spread by root grafts the symptom pattern is often the entire tree flagging (branches with yellow, wilting leaves) almost at once, whereas beetle carried infections start with a branch or two near the top of the canopy flagging and the disease spreads out from there, often taking a month or more before the entire tree flags. A practice to prevent the spread of the disease from an infected trees to a nearby healthy one is to sever the connecting roots by trenching. The trenches are usually cut to 36 to 40 inches depth and between the infected elm and one to be protected. The trench should be made at least 20 feet away from the healthy tree to avoid severing too many roots and father out is even better. The diseased tree should still be promptly removed and the stump ground out as soon as possible to reduce the survival of the disease in the roots.

We usually begin to see new infections from beetles in early summer and these are now showing up. These trees have one or more branches that are flagging and the wilted leaves are beginning to drop. The sapwood in the flagged branches has brown streaking and this this streaking is a good indicator of the disease. There is another disease called **black spot** that is producing similar symptoms in elms at this time. Elm trees infected with the foliage

disease black spot will also have the ground littered beneath them with leaves but these leaves will be yellow with small black spots, not curled and be moist.

The best means of managing Dutch elm disease for the community is to quickly remove infected trees. Valuable elms can be protected with injections of any number of fungicides but theses need to be applied by a commercial applicator and treatments must be redone every two to three years.

Another increasing problem is the locust borer (*Megacyllene robiniae*). I have received pictures and stopped to see a lot of black locust trees about 8 to 15 feet tall snapped off at 3 or 5 feet after the last storms. Each of these trees was heavily infested with the locust borer. This insect was not very common in South Dakota but with the increased popularity of black locust in the state, particularly the cultivar 'Purple Robe', this borer is showing up throughout the state. The symptoms of an infestation right now are dying trees or small locust that have their lower trunks break off. Inside these trees you'll find a cream-colored larva with a brown head and about 1 inch long. The locust borer only attacks black locust, not honeylocust, and the treatment is an application of an insecticide containing permethrin at the beginning of August. This insect is a little unusually in that the adult – a black beetle with yellow "W" shaped bands across the back – is active in late summer, not spring or early summer as with most borers.

E-samples

I am receiving pictures of apple, cotoneaster, crabapples, mountainash and pears with flagging branches. The leaves are yellow to brown, dry and hanging from the twigs. The tips of the twigs are often curled, a symptom referred to as a Shepard's crook. The problem is fireblight, a bacterial disease that was covered in the Update a few issues ago. It is a very common disease in our state but this year the reports are more frequent than in the past couple of years.

Management of fireblight on homeowner trees has limited options. Infected branches can be pruned out to reduce the spread to other parts of the tree. The

common recommendation is to remove the entire affected branch or shoot back to its origin (the trunk, limb, or branch it is directly attached to). However the disease may have spread further into the plant yet not expressed symptoms. Pruning is best applied in late winter as the disease spread usually stops once the summer heats up. Regardless of timing, pruning tools should be disinfected between cuts and at the end of the day to avoid spreading the disease. Lysol disinfectant is one of better products to use as it will sterilize the metal surface and is not corrosive.

Samples received/site visits

Hamlin County **The leaves are beginning to dry out on this apple tree. What might be the problem?**

This appears to be fireblight, a bacterial disease of pome fruits such as apples, crabapples, pears, mountainash and cotoneaster. I suggest pruning out all affected tips to at least a foot below the symptoms (and always back to a side branch or trunk, don't leave a stub). If the entire tree is expressing these symptoms, removal is probably in order.

Hyde County **Duane thinks his plant has some drift issues.**

He is probably right! The shoot tips curling is most likely due to a hormonal herbicide drift. However, which particular product and where the drift originated from cannot be determined from the sample.

Kingsbury County **Is this needleminer on the spruce sample?**

Yes, the needles were clustered together and I also found the holes the insect makes as it exits the needles. Treat the tree with carbaryl (Sevin), now, to control the adult moths that are flying at this time.

Lake County **What is wrong with this crabapple?**

The yellowing, browning, wilting leaves appear to be due to fireblight, particularly the drooping twigs with the blackened leaves still attached. I recommend removal and replant next year with another tree.

McCook County **What is wrong with this cotoneaster hedge?**

The blackening and wilting tips are symptoms commonly associated with fireblight. This is a bacterial disease that occurs frequently on hedge cotoneaster. The best control of the disease is to rejuvenate the entire hedge, cutting all the shoots down to 2- or 3-inches above the ground. This usually eliminates the disease but not always as sometimes the blight extends to the

base. I also recommend treating your pruners or loppers with Lysol Disinfectant between cuts to avoid further spreading the disease.

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