Pest Update (June 5, 2013)

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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/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 product identified in this publication.

Timely Topics

Plant development. We are still way behind in plant development from most years. This year the Miss Kim lilacs are blooming in Brookings; about a month behind last year and a couple of weeks later than normal.

Treatments you should have done by now or very soon

Spray treatment to protect pines from mountain pine beetle (if you live in the Black Hills). We do not have many pest treatments to begin at this time of year. Most disease have already infected the foliage and foliar-feeding insects and borers have already come and gone or have burrowed into the protective inner bark or wood. However we have one insect in which treatments can still be initiated and that is the mountain pine beetle (*Dendroctonus ponderosae*). The insect attacks trees in mid-summer, the flight often peaking just before Rally week, and the eggs are laid in the inner bark. The small, white, grub-like larvae soon hatch and begin feed which continues until late spring of the following year before become pupae and then adults.

Ponderosa pine trees attempt to defend themselves by producing resin to "pitch" the adult beetles out as they burrow in. Sometimes you can find a successful pitch out with the beetle still stuck in the whitish brown glob of resin. However, far more often the lower 15 or 20 feet of the tree is covered with dozens of pitch masses aligning the trunk, evidence of a successful attack. Attacked trees die by the spring following a successful mass attack by the beetles. These trees can not only be identified by the numerous pitch masses formed last August as the beetles burrowed in but by the foliage which is now becoming discolored. Later this summer as the adult beetles fly from their now-dead hosts, the tree will have red needles that turn ashen-gray and drop by the second year.

High-value trees, those surrounding a home nestled in the Black Hills forest, can be protected by pesticide applications. <u>The only time a pine tree can be protected by a pesticide application is if the spray is applied before the beetles attack.</u> The window for spraying a pine to protect it from attack is rapidly coming to a close. A check of insect development last week found that most of the mountain pine beetles were still larvae but a few pupa had already formed. Based upon this development, the first adults will probably be flying sometime in mid-July. This means the spray should be done within the next week or two. The trunks of the trees to be protected must be sprayed to from the ground to a point on the trunk where the diameter narrows to 5 inches or less. This means the sprayer must reach at least 30 feet or more on mature trees, a distance that requires a high-

pressure sprayer, at least several hundred pounds per square inch (psi). Most small sprayers either cannot reach that high or at that distance will some mist the bark rather than have the pressure necessary to soak the bark to runoff. The pesticides to use for treating the trunks are those containing either bifenthrin, carbaryl or permethrin as the active ingredient and use only formulations specifically for listed for controlling bark beetles.

E-samples

Brown evergreens. I received this picture of an arborvitae from the Winner area that is showing severe foliage browning. Arborvitaes are not drought-tolerant trees and the dry weather we experienced from mid-summer 2011 to recently stressed many evergreens. The browning and dieback of evergreens is a common sight throughout the state but is most apparent adjacent and south of I-90. Spruces and junipers (cedars) are the most affected with pines much less so. The few arborvitae and yews planted the central part of the state are also exhibited browning and dieback. Unfortunately there is no spray for this problem. Interestingly, the native junipers in the woody draws appear to be doing fine, it is mostly a problem with the trees in windbreaks and in yards.

I have also been receiving many calls and emails about maples with a lot of tip dieback. The calls are mostly about silver and the Freeman maples (such as Autumn Blaze) and again this is weather-related rather than a new disease. We had many maples and birch suffer dieback after the warm winter of 2011-2012 and the drought that spanned all of 2012 resulted in further injury. The only treatment is to prune out the dead shoots and branches.

I am receiving emails regarding the orange spots on ash leaves. The samples are coming from the east central part of the state, Salem to Mitchell and up to Huron (areas we usually see hit every year) The disease begins as bright orange spots on the petioles and undersurface of the leaves. These enlarge during the season, becoming almost gall-like and further distorting the leaves. These infected leaves usually drop prematurely resulting in another round of telephone calls and emails from alarmed tree owners as their yards become filled with leaves in July and August. The disease, as with many rust diseases, has two hosts, one is the ash and the

other is a number of grasses. The disease can be control with a single application of a fungicide containing myclobutanil made just as the leaves come out but obviously that time period has passed. We do not recommend annually treating for the disease since it only periodically becomes a problem.

A rust disease that is appearing right now is crown rust on buckthorn. Why anyone cares about a disease that attacks buckthorn is beyond me but I always get a few samples at this time of year. First buckthorn (*Rhamnus cathartica*) is a tall shrub/small tree that is sometimes becomes large enough to be confused with crabapples (except buckthorn does not have a showy flower and the fruit is a small purplish-black berry rather than a crabapple). The disease, crown rust, alternates between buckthorn and cereal crops and grasses. While buckthorn is the primary woody host, the disease is also present on *Elaeagnus* species such as silverberry and *Shepherdia* species such as buffaloberry. There is no control for the disease as buckthorn is considered a weed rather than a valuable ornamental.

Hackberry tatters is an odd collection of symptoms that are puzzling. The symptoms appear just after the leaves open with the expanding leaves having reduced interveinal tissue, almost a lacy appearance. There are a number of insects and disorders that can create these symptoms including late frosts, insect skeletonizers and herbicide – all stressors that have been found associated with these symptoms this year – but there are some leaf injuries that cannot be explained by these common problems. Current though is that leaf tatters may be weather related injury caused possibly by cold injury while the leaves were still in the bud. The injury result in some tissue damage and this dead tissue drops out as the leaves open and expand. This is just a theory and it is likely that the actual cause is a combination of stressors than just one. Fortunately the leaf damage occurs early enough that the trees will produce more leaves still this season and the tatter problem appears to have little impact on the tree's health.

Samples received

Brookings County FL1300007 Please id this wood

This is boxelder (*Acer negundo*).