**Primetime**

**By Calvin R. Finch, PhD, SAWS Director, and Horticulturist**

Wednesday, January 18, 2012

Don’t Forget Oak Wilt

Oak wilt has not gotten much attention lately because of the drought. It does deserve being on our minds, however.

Oak wilt is a fungus disease that kills oaks in the red oak and live oak groups. White oaks seem to be safe from the disease.

Infected red oaks let you know when they die. The leaves all turn red when they should be green. They hang on the tree at death and several weeks after.

At some point the bark begins to slough off. Underneath the bark a fungal mat forms on some red oaks. It is the spores on this fungal mat that begins the oak wilt disease cycle.

Sap beetles are attracted to the mat and pick up the disease spores. The sap beetles feed on sap oozing from fresh wounds on other trees. If the beetle lands on a wound on a live oak or red oak, the spores move into the tree and may develop.

On live oaks the disease develops more slowly than on red oaks. Within several years after infection sections of the tree die while the rest temporarily lives on. The symptom is called flagging.

The leaves on the flagged sections have a distinctive symptom, interveinal chlorosis. The area around the veins is yellow or red. The only other situation that causes the same symptom is lightning.

Individual red oaks become infected. Live oaks however are usually interconnected by root grafts so when one tree is infected it becomes the origin of an infection center. The disease moves out from the origin at about 100 feet per year. That means if you diagnose a live oak as infected in your neighborhood, all the live oaks within 100 feet are already infected.

The only way an infection center can be stopped is when it runs out of interconnected trees to infect. In the San Antonio area this usually happens when the infection reaches a road or underground sewer or water line.

Infection centers are treated by digging a trench with a rock saw or back hoe to break the root connections. The trench always has to be over 100 feet from (150 – 200 feet) trees with symptoms.

As you imagine, treating by trenching is an expensive, difficult job. A second treatment option does not stop the spread of the disease but it can save trees within the infection area that are not yet showing symptoms. Trees are treated by injections with propiconazole (Alamo). The process resembles a transfusion with multiple injection points in the root flares feeding the tree the fungicide under pressure. It is a relatively slow and expensive process but worth it to save a landscape full of live oaks.

Treatment of oak wilt is difficult and the results of the disease are devastating, luckily it is easy to prevent. The key to prevention is to paint fresh wounds of live oaks or red oaks as soon as they are made or discovered. A coating of pruning paint or even latex paint on the fresh wound prevents transfer and/or entry of the spores into a newly wounded tree.

Every hour you wait after the wound occurs up to 5 days, the more likely the tree is to become infected. After 5 days it is too late. The spores are in place if a sap beetle carrying spores has visited the wound. After 5 days the tree’s own defenses also are in place on the wound.

As devastating as the disease is, it is only moderately infectious. Hot weather makes the spores inactive and cold weather limits the activity of the sap beetles. The key danger periods for disease spread are in the spring and fall. To be safe however, paint the wounds whenever they occur.

Red oaks are a special issue. Once one is killed by oak wilt it needs to be cut down and removed in urban areas to prevent development of the spore mats.

Firewood can also be an issue. Infection centers in the Midland area originated when deer hunters carried back red oak firewood from the hill country.

To be safe red oak firewood must be dried out by experiencing a summer before it is moved. Recognize dried red oak firewood by loose bark and checked wood (cracked). If there is any question your firewood should be covered and sealed in clear plastic before the cold weather wood burning period is over (February.) Better yet, burn it all up.

If you suspect oak wilt or just want to learn more in order to protect your trees, visit the Texas Forest Service Oak Wilt website “[www.txforestservice.tamu.edu](http://www.txforestservice.tamu.edu).” Regional Forester Mark Duff at “mduff@tfs.tamu.edu” is our contact for diagnosis and treatment advice.