

## **My Tree Looks Bad, What is Going On?**

**By Marty Morgan, Wise County Ag Agent**

Well this winter and spring have been rough on not only our shrubs and bushes but also some of our trees. The subzero weather for a few days in February combined with excessive rainfall late in the winter into spring has stressed some of our plants and trees. We lost quite a few shrubs and bushes that are not as cold tolerant as they needed to be this go around. I have made a lot of site visits and looked at a lot of trees and shrubs here lately and this is what I see. The shrubs and bushes are pretty simple as the freeze just flat out got them. Keep an eye on the ones that made it through as they could develop a disease that you need to treat for. Trees on the other hand I see several problems. First, the artic blast did knock back several of our tree species including our Live Oaks, Cedars or Junipers, and especially hit hard were our Pine and Spruces. The Live Oaks are looking thin in the canopy, but what leaves that are there has a good green color to them. I recommend leaving them alone this year and see if they will make a full recovery next year, barring any more subzero blasts, diseases or insect infestations. I think most of them will be ok given time. But the Pine and Cedars look horrible with none to very little signs of life in most of the ones I have looked at. I have 8 huge pines on my place, and I am fearful they may not make it as they look absolutely awful. Another problem I see with some of our trees is thinning of the canopy or dying back from the top down. This can be due to a couple of things. First, the top of your tree, also known as the crown, should normally be the healthiest part of your tree. If your tree is dying from the top down it could be experiencing a common but serious tree symptom call crown decline. Crown decline can be caused by many issues including, root stress or damage, insects, drought, excessive rainfall, or bad soil composition. Next, there are some cases of Oak Wilt in North Texas and its deadly and hard to distinguish from these next two diseases without a test. We do have a problem in North Texas with what the experts call Oak Decline or Sudden Oak Death. This affects mostly Post Oaks but can affect other trees as well. Here is the difference between the two. The decline can and usually does take several years to kill a tree, while SOD happens fast and the tree dies in a very short time, usually several months to a year. There are a couple of recommended treatments that may or may not help with any of the three diseases. One is a microinjection system that Injects systemic fungicides into the trunk at the root crown just below the soil line but is rather expensive at near \$300/tree. Propiconazole is a highly recommended fungicide for treatment. Or by using a trunk injector kit you can do single applications on the trunk, a little less expensive. These are common recommendations for Oak Wilt but may help on Oak Decline and SOD. Another way I have found to use a systemic fungicide is applying it to the trunk of the tree and soaking it all the way around from the ground up to about 10 or 12 feet. Some say Oak bark is too thick for this to absorb into the tree, but I have seen more good results than bad using this method over the past six years. You will need to add a Bark penetrant called Penra Bark to drive the fungicide into the trees vascular system to be effective. This strengthens the trees immune system to help it fight off stress and diseases mentioned. And it is very affordable at \$15-40/tree depending on its size. I think it's a viable alternative and worth a shot to try and save your tree, especially if around your home.

Next, I have look at trees with the leaves turning yellow up in the canopy and either they are falling off or cling to the branch until they turn brown. Too much rainfall or excessive watering can lead to this type symptom and we can only control the latter. And it could be a nutrient deficiency especially on Pecan or Fruit trees of which a good fertilize program will help cure. It could also be a condition called Chlorosis, which is an abiotic (not caused by a living organism such as a fungus or virus) disease. Certain

types of trees and shrubs are more prone to iron chlorosis than others because they are more sensitive to high pH soils. Those trees most likely to show symptoms of iron chlorosis include pin oak, flowering dogwood, sweet gum, silver maple, tulip tree, and magnolia. It's characterized by the greenish-yellow to yellow leaves. Chlorosis can also be the result of root damage, girdling roots, or trunk damage from mowers and cord trimmers. An application of iron chelates to the soil will usually solve this problem. Besides Chlorosis, diseases, too much water, or a nutrient issue, it could be a Root Rot such as Phytophthora, Texas Root Rot (also known as Cotton Root Rot), or Armillaria Root Rot. Root Rots too are hard to diagnose and treat. You can diagnose Armillaria root rot by checking the base of your tree beneath the soil. The wood can show a white rot. If you remove the outer bark from the roots, they may look spongy and stringy (hence the name shoestring fungus). For Texas Root Rot, the roots are covered by the characteristic cinnamon-colored mycelial strands, a fungal matt. In Phytophthora Root Rot the bark around the soil-line may appear darkened. Cutting away some bark should reveal red-brown discoloration in the wood underneath it. Disease symptoms are distinguishable from Armillaria root rot because mycelial mats do not develop in tissues infected with Phytophthora root rot. But again, using a good systemic fungicide will likely help considerably. Good management and preventative strategies will help deter diseases and lesson the stress placed on the tree.

There are other diseases (and Insects) we need to consider by evaluating the bark and leaves and take appropriate measures to control. There has been numerous fungal problems this year thanks to all the cool and damp weather, and most of them are treatable with a good systemic fungicide. Leaf Spots are common too and I have looked at my fair share of those over the last several weeks. The trees are a little harder to diagnose and treat and distinguish between a Root Rot or some type of decline being the problem. First, they are usually tall and good size and hard to apply a spray fungicide or insecticide. Second, Insects can cause problems too such as Bark Beetles and different types of Tree Borers. The good news is there are several good systemic fungicides and insecticides on the market that you can use as a soil drench, although this will take a little longer to get into the tree via the roots. Again I will stress that when it comes to fungus control there is also a good treatment using a systemic fungicide called Reliant or Garden Phos that you can apply to the trunk of the tree by soaking the bark all the way around the trunk from the ground up to about 10 or 12 feet. This is the method I recommend most often and the one I use on my trees. If it is an insect problem, then a soil drench is your best bet unless the tree is small enough to reach it by spraying. There are lots of products out there so be wise and do some homework and study the labels to find the one that fits your needs. After all, You're the Boss!!!

Be sure to check out our website at [wise.agrilife.org](http://wise.agrilife.org) under Marty's Toolbox for more great information on this subject.