

Diagnosis of Deciduous Trees

Susan M. Trice, UME Horticulture Educator/ Master Gardener Coordinator

Imagine you are relaxing in your favorite lawn chair, cool drink in hand, listening to the sounds of Mother Nature, when you gaze upward into the gently swaying branches of your favorite shade tree canopy. Something is wrong with your tree. It may be spotted leaves, dead branches, whole sections without leaves, shiny substance on the leaves, worms crawling all over or in tents, holes in the trunk or any number of things. You wonder if you should do something about it. You ask yourself, 'Is it going to harm or even kill my tree?' So, you decide to investigate and take a closer look. You make note of everything in as much detail as possible and you go do some research to investigate what is happening and what to do about it. Welcome to the world of 'Diagnosis of Deciduous Trees'. It is my intention in writing this article to help you realize a few things about your tree and what steps to take, if any, to remedy the situation. Please know that when I write 'trees', I am referring to all woody plants including shrubs.

As an Extension Horticulture Educator, I have had a lot of sick-looking branches brought to me for examination and diagnosis especially in the last two years. Just about all that were received were infested with some type of fungus. Rarely do I see bacterial or viral problems. In each case, the trees have suffered some type of stress which can include summer drought, bitter cold winters, and/or warm wet springs. The recommendations were to give the tree a drink during times of drought, fertilize sick trees in the fall, and if warranted use an environmentally friendly fungicide in early spring. Since fungi have spores that can overwinter in leaves, the best thing you can do is to gather and dispose of fallen leaves. You might be tempted to put them in your compost pile, but only do that if your pile gets very hot. Most do not. You can send it to the county recycling center as their pile gets very hot and can kill the pathogens.

What about all of the other problems? First of all, know that most of the time well established trees can overcome many insect and disease infestations. But, once in a while they need your help, especially for landscape plants. Many of these plants were planted in areas which are typically not their native habitat.

Keep in mind that trees, being plants, have five basic needs: water, air, light, temperature, and nutrients. Let's consider water first. Newly planted trees will require watering until they are established. Please make sure they are planted properly- right depth, roots free to grow, etc. Some established trees get thirsty with or without a drought and may need extra water. To make sure your trees get enough air flow, you may need to thin out some branches. With proper air flow you reduce the chance of the trees getting molds, mildews and fungi. Thinning allows more light to reach inner branches as well. When selecting trees for your landscape, make sure they grow well in our region. Just because you fell in love with a tree in the south, does not mean it will do well here. If you have dead or broken branches, they will need to be pruned out. Either hire a professional or get proper instruction to do this. For instance, 'Fire Blight' causes branches to die and turn dark brown or black with a crook on the end. This bacterial infection will need to be pruned 8-12" below the affected area while leaving a 4-5" stub from the previous branch. During the following winter, it can be pruned to the collar of the previous branch. Trimming it all the way back the first time, will not arrest the infection. Finally, it is wise to make sure the tree is getting the proper nutrients. You may need to fertilize once in a while. Be careful using mulch. It should be 2-3" thick and away from the trunk, not touching. Having mulch against the trunk increases the likelihood of 'borer' infestation and sucker growth. Use the correct type of mulch. 'Bark' mulch can raise the pH of the soil which is not good for acid loving trees.

Let's consider some abuses by modern technology or mankind. Often times, roots become damaged from digging to establish a flower bed beneath the tree or cutting away parts of the root system for other things as part of a construction project. I had one client who told me that half of her tree had no leaves while the other was fine. It was like you had drawn a line down the center of the tree, one side full of leaves, the other bare. How strange, I thought. It turned out that the large maple had definite root restriction. On one side was a driveway within the drip line of the tree, the front had a sidewalk and the other side had several small trees. The tree was merely adapting to its environment.

Another malady suffered by trees is what is jokingly referred to as 'bump disease'. This occurs when the lawn mower bumps against the tree damaging the bark. You see the cambium layer, which contains the new cells, is located just beneath the bark. Also, openings in the bark allow for insect and disease infestations. Other manmade items that can do a great deal of damage are: ropes (swings, clothes lines), metal cords (lights in trees, holding branch up to make room for vehicles), nails and many other items.

Now that you have done all that you can do, and still feel you need help, know that you can still get it. Here are some recommended choices: 1). Refer to the University of Maryland Home and Garden Information Center website (www.hgic.umd.edu). Click on 'plant diagnostic', check the on-line publications, under 'ask a question' search your topic, and/or many other options. 2). Ask a Master Gardener at one of their plant clinics, 3). Use the 'Help Desk' on Mondays from 1-4 at our office [Temporary address starting July 18th- 5370 Public Safety Place, Frederick, MD 21704] or drop items off anytime, 4) Email pictures/questions to me (strice@umd.edu) or use the HGIC website, or 5) send samples to HGIC as instructed on the website. It may be tempting for you to take your sick samples to a local garden center but keep in mind you could infect or infest their livelihood of plants.

I don't know about you but after reading all of this, I'm ready to go back to relaxing in my favorite lawn chair.

For more information about the Frederick County Master Gardener/Horticulture Program, visit www.frederick.umd.edu/mg or call Susan Trice at the University of Maryland Extension Frederick County office, (301) 600-1596. University of Maryland Extension programs are open to all citizens without regard to race, color, gender, disability, religion, age, sexual orientation, marital or parental status, or national origin.



