

2011 Feb 02
Alamosa Trees
Marilyn Loser

When is a tree a hazard? Part 1

A tree is unsafe when it has a defect or condition that threatens people, places, or property. Trees are remarkable in their ability to stand their ground. However, they're unable to escape from dangers and threats whether caused by natural forces or the urban environment.

It is vital for Alamosa homeowners to keep in mind that all trees will die sometime, but there is much we can do to prolong their health, safety, and useful life.

There are three simple rules for having safer trees—systematic inspection, treating problems quickly, and removing a tree when its risks outweigh its value. This column will focus on homeowner tree inspection. Winter is a particularly good time to inspect deciduous trees since leaves don't get in the way of structure observation.

Trees have three inspections areas: critical root zone (CRZ), trunk, and crown.

Roots are to a tree what a foundation is to a house. The CRZ is measured away from the trunk, one foot for every inch of trunk diameter. For practical purposes, many people consider it to be the area from the trunk to the outermost reach of foliage.

Root failure results from the inability of the soil to hold the root system in place or from root damage. Saturated, waterlogged soils and leaning trunks combined with high winds can cause root failure.

There was a recent example of this type of hazard tree along the southern Rio Grande dike path just west of State Street Bridge. As I walked along I had to bend down to avoid a branch across the path. It appeared that a large leaning cottonwood leaned more than usual hitting a large branch of an adjacent tree and severely cracking it. I didn't know how dangerous the situation was, but I called the Department of Parks and they cut down both leaning trees. Six or seven large trunks remain in the cluster.

I created a root problem in my own yard by planting trees near outside fences and only watering the trees toward the center of the yard. All was well for several years and I enjoyed my aspen copse. Then one year, the winds were strong enough and the trees large enough that the quaking aspens fell over one by one. In our arid climate roots only grew towards the yard interior where I watered, so had no root support towards the fence. I gave myself the "Dumber than Dirt" award – I believe this award, if given, should only be given to oneself.

Other forms of defective roots occur when they are severed (such as by building construction or road work), decayed, or otherwise damaged by anything that keeps them from normal growth.

Take action if:

- A tree is leaning with recent root exposure, soil movement, or soil mounding near the base of the tree.
- More than half of the roots under the tree's crown have been cut or crushed. These trees are dangerous because they do not have adequate structural support from the root system.
- Advanced decay is present in the root flares or "buttress" roots.

The trunk is the main tree stem between the top of the root collar and the lowest limb. Multiple trunks are a problem with some of the older trees in Alamosa. Elms and cottonwoods often have multiple vertical stems that grow into one another. These competing stems don't bond together, so as they grow heavier over the years, they are prone to splitting.

Cavities and decay. Decay is the breakdown of wood cell walls by fungi. Decay usually results from a past injury to the tree, such as construction damage, storms, insects, or parasites. Trees try to contain decay by forming barrier walls to hamper further spread. Cavities are hollows or holes that are the result of advanced decay where wood fibers have completely deteriorated.

Size and location will determine if cavities or decay are unsafe. The larger the size, the greater the risk. Risk increases if cavities or decay are near an important junction, such as a branch base or ground level.

The next installment of Alamosa Trees will focus on the crown, hazard assessment, and corrective action.

Much of the content for this column came from the United States Department of Agriculture's publication "How to Recognize Hazardous Defect in Trees", and from Auburn University's "Homeowner's Guide to Safer Trees. For specific local species information, consult the lists at Alamosa Trees (AlamosaTrees.net).

"A tree never hits an automobile except in self-defense." -- American Proverb