

**Friday's Feature****By****Theresa Friday**

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**Get to the root of the problem**

Warmer weather along the Gulf Coast has encouraged people to start their gardening chores. Just walking around neighborhoods this week, I can tell that significant pruning is going on. Most gardeners will spend time and effort carefully shaping a shrub or tree. Unfortunately, not many gardeners will spend an equal amount of time correcting root defects.

Roots are usually the forgotten part of the tree and shrub. They typically comprise from one-third to one-fifth of the weight of the tree. Roots can extend out three times the width of the canopy. Massive root systems are important in stabilizing the plant during high winds.

Roots that get deflected by things such as house foundations, streets and sidewalks impact the uniformity of the root system and thus decrease the tree's stability. Deformed root systems can result in unstable trees that can fall over.



**This tree shows major crossing roots that will lead to an unstable tree.**

*Photo credit: Theresa Friday*

Growing a good root system begins with buying a good plant. Prior to purchasing, remove the plant from its container and look at its root system. A tree left in a nursery container too long might not develop roots on one entire side of the tree after it is planted in the landscape.

If you must plant a tree with circling roots, these roots should be cut aggressively with a shovel, knife or pruning tool to prevent them from girdling the tree later, especially if they are near the top of the root ball. Make three or four slices an inch or two deep from the top of the root ball to the bottom. If in doubt about whether a root is large enough to cut, go ahead and cut it. This will be best for the tree in the long run. Each year after planting, be sure to inspect the tree's root system. Gently pull away the mulch and even some of the soil. Look carefully for root defects such as crossing or girdling roots and kinked roots.

Certain species such as magnolia, maple, hollies and others appear especially susceptible to root defects; however, any tree can be affected by circling or stem girdling roots.

Trees with roots that are touching or circling the trunk instead of growing straight away from the trunk stress the tree by reducing or eliminating vascular flow where the root contacts the trunk. This stress increases with time as the root grows in diameter. Left uncorrected, girdling roots can lead to dead spots on the trunk and tree decline. Trunk girdling, dead patches on the trunk, and tree death could occur when the defect is serious.



**Correct crossing roots  
when the tree is young and  
the crossing root is small**

*Photo credit: Theresa Friday*

Some of this can be corrected by removing the root defect, but root removal also stresses the tree. Stress from root removal will only last for a relatively short period and will decrease with time as the tree recovers from the loss of the root. Leaving the root defect in place can increase stress over time.

Guidelines for root maintenance:

- If the root circles less than  $\frac{1}{4}$  of the trunk and is easy to get to, remove it.
- If the root circles less than  $\frac{1}{4}$  of the trunk but would be difficult to remove without injuring the trunk, then cut the root but don't remove it.

- If a root covers a main root, then cut or remove it.
- If a root circles more than  $\frac{1}{4}$  of the trunk, remove the circling root.

Taking care of a tree's root system will ensure a stable tree. Routine checking and correcting minor defects when the tree is young is easy and beneficial. Root severing on mature trees may cause more harm than good.

Theresa Friday is the Residential Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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