Proper Tree Planting Techniques

The most common cause of tree decline after twenty to thirty years is improper planting. The most common mistake is planting trees too deep. Most nursery trees, whether they are potted or burlapped, are covered with excess soil. Typically, the soil is 2-3 inches above the root flare or root collar (the area at the base of the tree where the main stem can be seen flaring out before it enters the ground).

Trees planted with the root flare covered with soil will, in time, develop adventitious roots above the root flare. These adventitious roots will inevitably grow around the base of the main stem and strangle the tree. This condition is called girdling root.

To prevent this future decline in tree health and consequential death, it is most important to first remove all excess soil above the root flare. Furthermore, when nursery trees have been growing in containers or burlap for a short time, they become root bound. The roots will then grow around the edge of the container or burlap and further stimulate the development of girdling roots. All adventitious roots presently growing above the root flare should be removed at planting. It is also recommended to scour the root ball of the tree with a knife to cut the growing roots. Pick four different places along the root ball— it’s not necessary to do any more than that. This will promote new root growth outwards and prevent girdling. In addition, if the tree is burlapped, it is best for the health of the tree to have the wire basket and all the burlap removed from the root ball before planting. This will put the root system in contact with the soil immediately and will not provide barriers of any kind while the tree continues to put on new root growth.

When preparing the site, it is important to loosen the soil below the planting. If it is loosened, this soil will eventually settle and force the tree roots deeper into the ground. Consequently, the main trunk will then get buried under the soil and adventitious roots will begin to grow.

Staking the tree is not recommended or necessary unless a tree is planted in a very windy site. The swaying of the tree in the wind actually promotes more root growth and will therefore result in a strongly anchored tree if left unstaked. However, if staking is necessary, the stakes should only be left on the tree for one year and then taken off.

Tree wrap is only necessary in winter. If tree wrap is put on the tree’s trunk, the best time to do it is near the end of August or September. It is very important to remember to take the wrap off by April, or you may start to see insect or disease problems starting under the wrap.
Proper Tree Planting Diagram

- **Root Collar**: Shall be level or up to 1 - 2" above finished grade.
- **Bud Graft**: Remove only dead or broken branches or double leaders at planting time.
- **Grade**: Break down sides of the hole when backfilling.
- **Backfill**: Use existing soil. Water thoroughly to eliminate air pockets. Do not tamp!
- **Soil under ball undisturbed**: to support root ball and reduce settling
- **3 times ball diameter**

Stake only if you have to. Use 3" wide webbing straps and secure to stakes with heavy gauge wire. The wire should be able to stick straight out from the stake and hold the webbing strap up, preventing it from sliding down the tree. Do not stake tightly - trees gain strength from movement. Remove all stakes after one year.