

**A LITTLE BIT COUNTRY
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No! \$10 For A \$100 Tree

Keeping trees alive and healthy involves a lot of knowledge and effort – knowledge of what to do (or not to do) and the effort of following through with proper tree-care techniques. One of the most important things involved in tree health is ensuring that trees are planted properly. Incorrect planting will doom a tree to a short life or a very difficult one.

Keeping trees healthy begins before they are even planted. Tree selection is critical to ensure planting success. Foremost, trees must be hardy enough for the climate they are planted. There is a reason why few trees grow naturally in this region. This area is characterized by very cold sub-freezing winter temperatures and a general lack of growing season precipitation. These two conditions are magnified with frequent winds and generally low humidity. Tree selection also includes understanding tree/soil relations and matching the correct species to the location.

Proper tree planting begins with the simple act of digging a hole. Joe Zelinski, NDSU Extension Forester, tells me that many homeowners dig a \$10 hole for a \$100 tree. He emphasizes the depth of the hole is critical to ensure that the tree is not planted too deep or too shallow. The hole should be just deep enough to allow the root collar to be at the ground level. The root collar is the point where the stem tissue turns into root tissue. The collar is more of a transition zone than a particular point. The root collar normally is considered to be the part of the tree just above the first large flare roots emerging from the stem.

Trees planted too deeply are at risk of developing stem-girdling roots while those planted at a shallow depth may not provide the ability to withstand the strong winds which we often experience. The hole should be about three times the width of the original root ball. If the soil

consists of a lot of clay, shape the sidewalls of the hole. This will allow the tree to develop stronger lateral roots.

For trees that are containerized or come in balled and burlap condition, remove the burlap, wire cage, or plastic container before placing the tree in the hole. If the tree's root system is dormant, you may remove soil from the root ball to prune the roots if necessary. If the roots are already growing, keep the root ball intact. Remove any roots that circle the stem. These may become girdling roots which eventually will result in the demise of the tree. At all times, the roots must remain moist. If they ever dry out before planting it is almost certain the tree will soon die.

Once the hole is dug and the container removed, place the tree in the hole at the correct depth and begin to backfill the hole with the soil you removed. Replace the soil firmly against the roots, clearing any large air pockets that may allow roots to dry out. However, do not pack the soil to the point of compaction. Like other plants, tree roots need a good balance of water and oxygen to support good growth. Once you replace the soil, water the tree immediately, allowing the water to soak in slowly and cover the entire root system.

People often want to add some kind of soil amendment to the planting hole or backfill to boost tree growth but this not recommended. For example, people may want to add sand or gravel to the bottom of the planting hole in the mistaken belief this will improve drainage in a soil naturally high in clay. Conversely, adding large amounts of fine material such as silt and clay or organic matter (rotted manure) to the backfill in a sandy soil may create such good growing conditions that the tree never will send roots much beyond the original planting into the native soil.

There are many opportunities to make a mistake when trying to establish a tree in northwest North Dakota. The most common error I see is planting a tree that does not meet its environmental or management needs.

