



# Longhorn Arboricultural Services

a Longhorn Company

Nature optimally provides a perfect setting for plant growing conditions. A forest setting as an example is an ideal condition for trees that want to grow there. Plant debris is allowed to collect and naturally decompose, providing the roots nutrients, beneficial microorganisms and moisture. The soil is aerated by animals and organisms in their native state doing what they do. The soil is not compacted and has pockets of space to collect water and allow oxygen to penetrate.

We want our landscape plantings to grow and ideally they would do better if we were able to create conditions similar to nature, but that is not typically practical.

What is practical and should be implemented is a program that promotes the basics of ideal and natural growing conditions. Mother Nature has demonstrated this for us repeatedly and is the gold standard. Let's start at the root, no pun intended. Roots supply a system of anchor support, nutrient and oxygen transfer to the tree or plant. Roots also store energy for when it is needed; typically putting out new leaves after dormancy, loss of limbs or leaves due to physical harm, disease, freeze or drought for example.

Leaves create energy in the form of sugars from the sunlight they receive and this powers the growth of the plant.

The bark protects the internal vascular system parts of the plant

Root and soil disorders are the leading causes of premature decline of landscape plants, resulting in more than 80% of

all early failures. Damage to the trunk at planting time and failure to cut the roots are leading causes of tree decline after transplanting the tree.

Roots grow when soil conditions are favorable. Many soil conditions do not promote vigorous root growth. Soil compaction, lack of organic matter, poor nutrition, drought, freezing and thawing and low levels of beneficial fungi create an environment that is unfavorable to root growth.