



KNOWING IS ½ THE BATTLE: Root Collar Excavations

The root collar of tree is located at the base of the trunk, and is typified by a flare at the soil line. All trees, small or large, should have an exposed root collar. While this area is the transition zone from stem to roots, it is still trunk tissue. The root collar is not adapted to being covered by soil or mulch. Excess soil moisture on the root collar may lead to degradation of the vascular system, interrupting water/nutrient flow, and allow for the entrance of decay organisms. Normal gas exchange of O and CO₂ is also disrupted, compounding tree stress.



The stress of a buried root collar may also predispose the tree to attacks by insect pests and disease pathogens. Buried root collars also encourage girdling roots. Girdling roots are roots growing radially around the base of the tree vs. perpendicularly away from the tree. As the girdling root and trunk grow in diameter they begin pushing against each other. This too can lead to trunk damage and the disruption of proper water and nutrient flow within the tree.

In some cases trees may create a secondary root system. This is when adventitious roots are produced from above the root collar. These roots provide nutrients and water to the crown while the original root system slowly dies off. Over time the structural root system may decay away creating a hazard that is difficult to identify, as the crown of the tree appears healthy.

Root flares become covered through improper; nursery practices, planting, regrading, and/or landscaping. While mulch is great for trees, it should be kept at a 2-4inch thick layer, and away from the root collar.

