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Keeping Grass Away From Tree Bases Gives Them a Competitive Edge

When planting new trees, some people choose to allow grass to grow right up to the trunk, while others mulch around the base. Which gives the new tree a better chance of surviving? The Pair Horticulture Center completed research on seedlings where the base had five different treatments – bare soil maintained with grass-killing herbicide, mulched 3” deep, and three different grass species to grow up to the base of the tree. At the end of two years, there were no difference between mulch and herbicide treatments, but both treatments grew more than any tree with grass at the base. The caliper size of the seedlings without grass at the base were 100 percent larger than trees with fescue or bluegrass at the base, and 50 percent larger than those with bermudagrass at the base. Top growth has a 2-3x advantage when no grass is present, and leaves were both heavier and larger when grass was absent. The data suggests that keeping grass away from the base of the tree will give new seedlings and transplants the best chance for growing successfully when first planted.

Since grass should be kept away from the base of recently planted trees, the next question to ask is whether the soil should remain bare, or if mulch should be used instead. Mulch comes with many added benefits that make it the preferred choice to leaving soil bare. The first and most obvious benefit is the aesthetic value of mulch when compared to bare soil. Mulch will also prevent many weeds from growing around the tree, giving it an even greater competitive advantage as it grows. Mulch regulates soil temperature, and increases moisture retention, leading to fewer necessary watering of your new plant. Lastly, a standard mulch ring around the base of the tree will prevent you from accidentally hitting tree roots or the tree base when using lawn equipment like lawn mowers or weed whackers.

While mulching a tree is important, care must be taken to ensure that the tree is not over mulched, especially early in the tree’s life. Plant roots require oxygen and piles of mulch, derisively called mulch volcanoes in the industry, can smother roots. In search of oxygen, these

roots make their way to the soil surface and can wrap around the base of the tree, strangling the new tree to death. Some trees like bald cypress will have roots on the soil surface naturally without anything wrong with the tree, so knowing the biology of your new tree will determine if there is some cultural practice that needs changing.

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