

Sustainable Landscaping – Trees vs. Turf

Both trees and lawns are critical design elements in our suburban landscape. However, trees and turf directly compete for resources when growing in the same area. Thinning grass under large shade trees, large tree roots that hinder mowing, stunted young trees, tree trunks damaged by lawn mowers or string trimmers are all undesirable effects that can be caused by tree and turfgrass conflicts.

Properly maintained trees provide many benefits to the landscape, such as communal (creating privacy, reducing noise and glare), psychological (inducing a calming effect), environmental (moderating climate, improving air quality, reducing storm water runoff, harboring wildlife), and economic benefits (increasing property values, reducing heating and cooling costs). Turf has fewer benefits than trees but does provide a place to walk and play. To maximize the benefits of each, potential conflicts must be addressed.

Competition

Trees and turf grasses compete for light, water, and nutrients. A well-designed landscape should provide adequate space for trees as they mature to minimize competition. Shading is the most obvious form of competition, but roots compete below ground for water, nutrients, and space. Contrary to popular belief, most of the fine, water-absorbing tree and grass roots are in the top 6 inches of soil.

Where trees are providing dense shade, create a mulched bed to reduce competition from turf. A 2-4 inch layer of wood chips, double shredded hardwood mulch, or other organic material covering the soil within the tree's dripline is recommended (see Sept. 2018 issue for mulching info). Creating a native perennial shade garden within these large mulched areas can enhance your landscape and reduce the amount of mulch needed to fill the area.

Selection

Most varieties of turf require at least 4-6 hours of direct sunlight per day. Some fine fescue varieties do have a higher shade tolerance, but few will thrive in dense shade. Where lawn is the primary design feature, select woody plants that are small or have open or high canopies. Example tree species are Carolina silverbell, Eastern redbud, Kentucky coffeetree, ginkgo (male variety), tulip tree, and white oak.

Maintenance

Separating turf and trees in your landscape not only reduces competition but prevents other adverse effects. Broadleaf herbicides used in lawn care can cause severe damage to trees when misapplied. Applying fertilizer to one plant will also be absorbed by the roots of others nearby. Too much fertilization of either trees or turf can result in excessive above ground growth and reduced disease and pest resistance.

Lawn watering is beneficial to trees when done correctly. Typically, trees need 1 inch of rain every 7 to 10 days, provided as one deep watering. Frequent, shallow watering can be harmful to both turf and trees.

Allow turf to grow to the top of its recommended mowing height to increase rooting depth and decrease required inputs. Mow no more than 1/3 of the grass height and allow clippings to remain on the lawn. Mulched areas around trees will prevent damage from mowers and string trimmers.

Thin grass and weakened trees do not need to be a common sight in Lake Ridge. Proper planning, selection, and maintenance will allow you to achieve the benefits of both trees and turf.



Photo by Nick Drunasky