Mulch and Hot Weather

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Mulch is an aspect of the landscape that doesn't provoke much thought. Wood chips or rock? Landscaping fabric or not? The reality is that the right kind of mulch, applied to the proper depth, has a BIG impact on plant health, especially during the heat of summer.

Root function stops when soil temperatures reach 85°F and higher. This means no water and nutrient uptake occurs when soil temperatures are hot. No water moved through roots leads to leaf burn and heat stress. Woodchips and shredded bark act as insulation, protecting the soil from direct sunlight and buffering air temperature extremes. The result is cooler soils that favor root uptake of water.

Mulched trees and trailing plants that are lucky enough to shade their own roots have the advantage over ones placed in rock mulches, where the absorbed heat dissipates well into the evening hours and keeps soils hotter longer. Adding insult to injury, landscaping fabric used beneath rock interferes with root respiration (where plants roots take in needed oxygen).

The depth of woodchip and bark mulches plays a role in plant health. A 2-4 inch layer of mulch is the right amount to keep soils cooler while allowing root access to oxygen. Mulch piled higher than 4 inches, or mulch that extends up against the crown of trees and shrubs (the dreaded mulch volcano!) can be as detrimental to tree health as rock mulches are. More is definitely not better!

The extent of woodchip and bark mulches also plays a role in plant health. Devoting less real estate to lawn and more to mulching beneath tree and shrub canopies extends the benefits of mulch to more of the root zone. The workhorses of a root system, the fine root hairs, are better developed and there are more of them when growing beneath wood chips than beneath turfgrass. What is a good size for a mulched bed? At a minimum, mulched areas should extend out at least 4 feet from the tree trunk.

High temperatures can contribute to plant stress but incorrect mulching need not be one of them. Find out more about mulching by following this link: http://extensionpubs.unl.edu/publication/9000016361444/mulching-the-landscape/ .