

The Planting Hole

Research has shown absolutely no benefit from adding organic amendments to the planting hole backfill.

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What could be simpler than dragging a six cubic-foot bale of peat moss across a half-acre lawn for the sole purpose of mixing it with the backfill around a newly planted red maple?

The answer, no peat moss!

Sound like heresy? Perhaps! I make this point to emphasize that recent research has shown absolutely no benefit from the addition of organic amendments to the planting hole backfill. In no case did amendments improve growth and in some reduced growth over backfill with no amendments.

What does this mean for professional landscape managers? Essentially it means dig a wide hole, not a deep hole, and place the native soil back around the plant. Let's examine

the early research and its application for the landscape manager.

Whitcomb (Oklahoma), Pellett (Minnesota) and Corley (Georgia) working independently reached similar conclusions concerning backfill amendments. Pellett's work (1971) was the first to question the benefits of adding amendments to the backfill.

Two sites were selected and ten different soil amendments were studied. The test plant was *Lonicera korolkowii* 'Zabeli', Zabel blueleaf honeysuckle. The plants were evaluated over a two-year period.

There was no statistical difference in plant growth due to the use of peat, perlite, vermiculite or sawdust compared to plant growth in local soil at either planting site.

Schulte and Whitcomb (1975) reported that the growth of *Acer saccharinum*, silver maple, in a good, clay loam soil or a nutrient-deficient silt loam subsoil was as good as or superior to growth in amended soil. Amendments included various percentages of bark, peat moss, sand or vermiculite. Root development in the good, clay loam soil was vigorous and the root system extended well beyond the limits of the planting hole. Trees planted in soils amended with peat moss had fibrous roots but they did not develop beyond the amended planting hole.

There was a positive response to fertilizer applications in the clay loam soil. Forty pounds of a 10-20-10 fertilizer per 1000 square feet per month

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