

Planting/Transplanting Trees Bare Root

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Where the problem originates:

- liner production (seedling/rooted cutting/grafted)
- field or container production
- landscape installation
- landscape maintenance

Too deep from the nursery: Field Production:

- Seedlings planted too deep because root flare hard to detect
- Seedlings planted too deep to prevent blowing over
- Buds/grafts planted too deep to bury the graft union (or seedling cut back “dog leg”)
- Seedlings end up too deep due to cultivation for weed control

Too deep from the nursery: Container Production:

- Seedlings planted too deep because root flare hard to detect
- Seedlings planted too deep to prevent them from blowing over
- Seedlings end up too deep due substrate settling
- Seedlings end up too deep due to the use of long narrow propagation containers
- Buds/grafts planted too deep to bury the graft union (or seedling cut back “dog leg”)

Too deep in the landscape:

- Plant initially too deep in the container or field root ball
- Planting hole dug too deep
- Soft soil that eventually settles put underneath root ball in bottom of hole
- Excess hole soil put atop root system
- Excess mulch put atop root system

Reasons to bare root at planting:

- Exposes entire root system
- Reveals root collar and graft union
- Allows for repair of the root system
- Resolves the soil interface disparity issue
- Packs soil into the roots vs. against the root ball
- Virtually eliminates the need for staking (stabilization) at planting
- Lighter weight tree to handle
- Requires less equipment, less labor, and shallower planting hole
- Fewer back injuries
- Root system is kept moist (if using a root washing method)
- Trees can be compressed to fit through smaller spaces if planting in hard-to-reach area
- Eliminate some weeds/insects/disease organisms that might be in the soil or substrate

The Landscape Below Ground –Deep Roots of Landscape

Trees – <http://www.mortonarb.org/research/treeroots.html>

A Comprehensive Guide to Current Research and Practice

- <http://www.mortonarb.org/research/roots/index.html>

American Standard for Nursery Stock – ANSI Z 60.1 2004

- <http://www.anla.org>

Creating the Urban Forest: The Bare Root Method

- <http://www.hort.cornell.edu/UHI/outreach/pdfs/bareroot.pdf>