

Horticultural techniques for successful plant establishment

Plant Inspection

Be sure to do this before you accept a delivery of plants

- Roots: avoid circling, girdling, or kinked roots. Check for burn or freeze damage as well as death, decay, or disease. Choose plants with symmetrically distributed roots.
- Shoots: avoid damaged bark, poor pruning (e.g. topping) and disease. Choose plants with good taper, vigor, and normal growth patterns.

Caring for Plant Material Prior to Planting

- Keep roots cool and moist.
- Heel in off-season material to prevent freeze damage.
- Harden off greenhouse material prior to planting.
- On site, protect plants from excess light and heat, desiccation, etc.

Planting Hole Preparation

- Dig a hole no deeper than the root mass, but at least twice as wide.
- Build a soil mound in the middle of the hole to help spread the roots evenly.
- Remove roots, weeds, large rocks, and other debris from the planting hole.
- Do not add gravel, fertilizers, organic matter, or other amendments to the planting hole.
- Do not loosen or otherwise disturb the soil at the bottom of the hole.

Plant Installation

- Fall planting is generally best in mild climates; spring plantings require more irrigation.
- Remove existing soil from the roots to prevent soil interface problems.
- Remove all foreign materials – burlap, plastic, tags, etc.
- Orient the plant so the shoot-root interface is at or slightly above the soil surface.
- Prune out dead, damaged, or diseased roots; excessively long roots may be shortened.
- Prune out damaged, diseased or dead material. Do **not** top prune.
- Place the plant atop the soil mound and spread the roots out evenly.
- Backfill with **unamended** native soil.
- Water the plant well to help settle the soil; if holes appear, fill with native soil.
- Build a soil berm around the planting hole to increase water retention.
- Add a thick layer of well-drained organic mulch like wood chips, but keep away from trunks.
- Stake only if necessary; stakes should be loose and low (bottom 1/3 of plant) and removed after one growing season.
- Fertilize with fish meal or ammonium sulfate. Do **not** use phosphate-containing fertilizers.
- If needed, use tree shelters or other barriers to keep out herbivores.

After Care

- Water new transplants during the first 1-2 dry seasons to help them establish.
- Maintain a mulch layer ≈ 3-4 inches thick.
- Keep the root zone free of turf and weeds to reduce resource competition.

For more information, contact

Linda Chalker-Scott, Associate Professor and Extension Horticulturist
WSU Puyallup Research and Extension Center
7612 Pioneer Way E., Puyallup, WA 98371
Phone: (253) 445-4542; Toll free: (877) WSU-MG4U (978-6448)
URL: <http://www.puyallup.wsu.edu/~Linda%20Chalker-Scott/>