



## PLANTING TECHNIQUES

Planting techniques focus on the plant, site conditions, planting procedures and maintenance during establishment.

**Plant** refers to the stock type such as bare-root, balled and burlapped, container and mechanical tree-spade. Each stock type has potential artifacts associated with production, harvesting or handling that should be addressed when detailing steps in planting.

Bare-root plants as the name implies are harvested, processed, stored, shipped, handled and planted without soils or other media attached to the roots.

Container plants refer to any plant produced and sold in a container with intact soil or growing media.

Balled and burlapped (B&B) plants are grown in field soils and harvested with an intact soil ball wrapped in burlap or other mesh material. B&B harvesting is typically associated with trees and large shrubs.

Mechanical tree spade transplanting usually focuses on semi-mature trees or mature shrubs.

**Site conditions** refer to the soil type (sand, loam, clay) and drainage. Adequate drainage is essential for survival of most plants either newly planted or established. Any soil that does not readily drain should be examined to determine the cause. Clay soils can be conditioned and aerated by adding sufficient amounts of organic matter. Soils with a high water table may need to be drained by installing a subsurface drainage tile to carry off excess soil moisture. Raising the planting level with several inches of friable soil may be necessary in some locations to provide a porous soil condition necessary for good growth.

**Planting procedures** include: the planting hole; positioning the plan; fertilizing if necessary; backfilling the hole; staking; mulching and watering.

**Maintenance** during establishment primarily focuses on watering. There is no specific timetable for watering in any soil type. An indication of a plant's water needs can be attained by carefully checking for soil moisture 6-8" deep in the root-zone. If soil is moist leave it alone and check every day or two until soil begins to feel dry. Then, water thoroughly with a small stream as was done when planting. Water again only when soil begins to feel dry at this 6-8" depth or if wilting occurs on the plant's foliage. Maintain this watering practice for the first growing season.

Understanding variations within stock or plant type and site conditions aid in tailoring planting practices to encourage plant establishment.

The reverse side of this fact sheet outlines planting procedures for: **Container Shrubs**



# Container Shrub

## Notes:

1. Prune to remove dead, damages, broken, or weak branches; lightly thin the interior of the crown. Prune to maintain the appropriate shape of the plant. Container media/root mass should have adequate moisture prior to positioning the plant in the hole.
2. Remove the plant from the container; Disrupt the root mass to allow root/backfill soil contact. Butterfly the container/root mass on pot bound plants by slicing through the root mass 1/3rd the distance up from the bottom of the root mass in two directions; resulting in four lobes at the bottom of the container/root mass. Butterfly facilitates root development into the backfill and allows for the integration of backfill soil into the core area of the container/root mass. The Dig the planting hole 6" wider than the edge of the container/root mass. The hole depth is determined by the height of the container media/root mass. The top of the container/root mass should coincide with existing grade. The bottom of the hole should be firm and shaped as a plateau for positioning the root mass.
4. Orient the plant in the hole with respect to optimum viewing; Spread the four lobes and set the plant firmly on the plateau at the base of the hole; align the plant so that it is plumb (straight) in the hole.
5. Define the backfill soil/mix; for example, Backfill with existing soil; Backfill with a 50/50 blend of existing soil and topsoil; if you are requiring an amended backfill mix, identify the amendments and the percentages of amendments and soil in the mix.
6. Back fill in 2-3 layers, depending on the size of the plant, by packing the soil around the container/root mass to stabilize the plant, remove any air pockets in the backfill, and minimize or eliminate future soil settling which may cause a shift in plant orientation. Begin backfilling by slicing soil at an angle from the edge of the hole and use it to stabilize the container/root mass and ensure that the plant is plumb in the hole. Integrate backfill soil into the interior core area of

- the butterflied container mass and around each lobe. The second layer (and third layer, if needed) is packed around the container/root mass, finishes filling the hole to final grade, covers the top of the container/root mass and shapes a saucer over the container/root mass area. (A saucer is shaped over the container/root mass area to collect water and allow its gradual percolation into the container/root mass area. The saucer may remain or be knocked down after the plant has become established.)
7. Mulch is applied at a 3" depth over the planting area following the soil contour. Do not allow the mulch to come in contact with the trunk.
8. Apply nutrients (based on a soil test) at the appropriate rate and method for the plant.
9. Water root mass and backfill soil area adequately after planting.

