Handling and Planting Container-Grown Trees

Although many experienced landscape professionals prefer field-grown, balled and burlapped trees for landscape plantings, the nursery industry is producing more container-grown trees each year. Container-grown plants are popular with the consumer. There are many reasons why:

- A tree grown in a container will suffer little, if any, transplant shock when removed from the container and planted properly. A high degree of transplanting success can be expected.
- A container-grown tree can be planted throughout the year when the soil and weather conditions permit.
- Container-grown trees are grown in a lightweight medium and are easy to ship and handle by the nursery grower and the consumer.

On the down side, there are two serious problems with container-grown trees. A knowledgeable consumer can overcome either problem.

Container-grown trees are often root-bound. They grow more rapidly than shrubs, ground covers, and flowers, which are also grown in containers, making it difficult for the nursery grower to keep up with necessary repotting into larger containers. If a tree is not sold quickly, it will become root-bound in its final container. A root-bound plant will often girdle itself with circling, deformed roots and may stagnate or die. It is critical that circling roots be eliminated before planting the tree. Circling roots will continue to circle, unless they are disrupted and redirected.

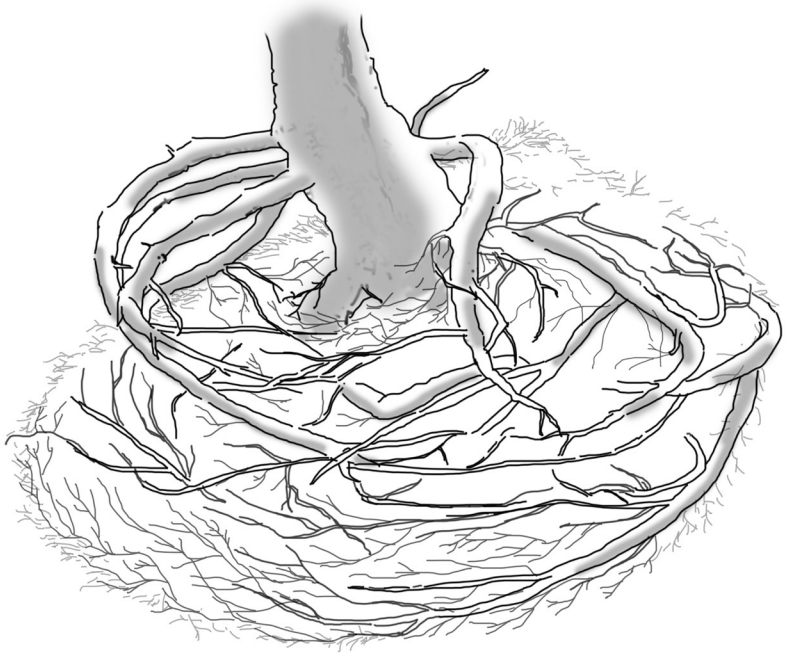
To lessen this problem, remove the root ball from the container and inspect for circling roots. If small, thin-diameter circling roots are detected, direct them away from the tree trunk by hand. If the root system is matted with fibrous roots, it may be beneficial to slice through the root system with a sharp knife from top to bottom in four to eight locations around the root ball and gently pull the roots away from the tree trunk. Plant the tree immediately.

If roots in the container are severely bound or so thick they cannot be straightened and directed away from the trunk, consider returning the tree to the nursery for a replacement.

Another root deformity that may warrant returning a container-grown tree to the nursery is the presence of stem-girdling roots. These roots encircle all or part of the tree trunk. If the tree can establish and grow, both the trunk and root could thicken to a point where the root compresses stem tissue and adversely affect the stem's vascular system.

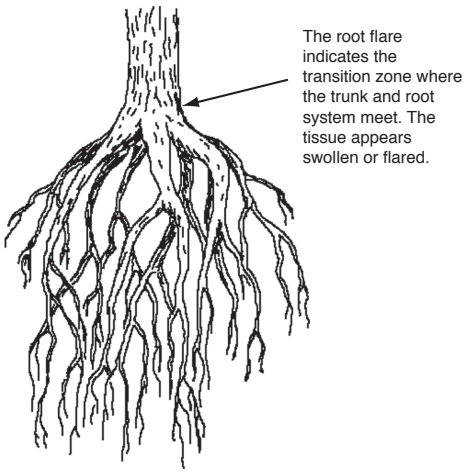
The second problem involves the soil interface. The root ball potting medium in the container will differ greatly from the soil that surrounds that medium once the tree is planted.

Generally, the surrounding soil will hold moisture better than the potting



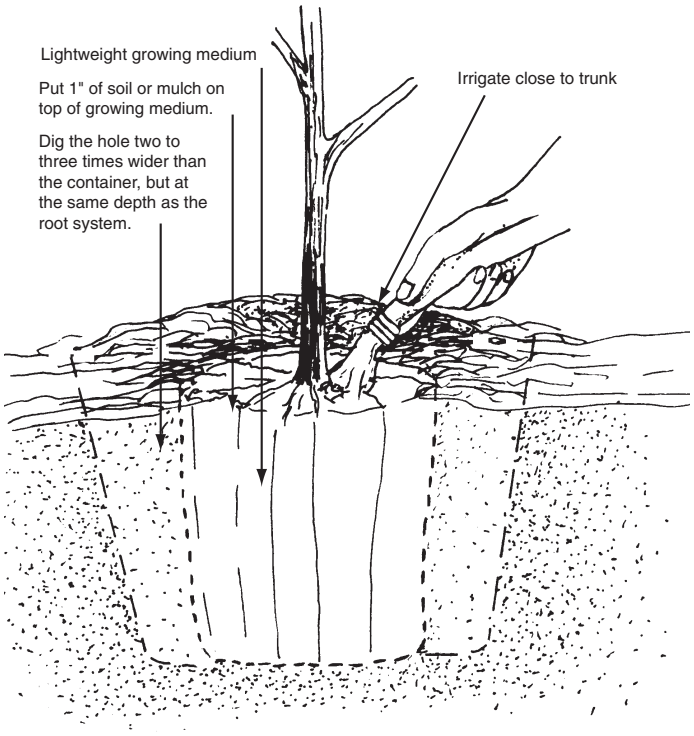
When a tree root system is in a container for too long before planting, roots can encircle the stem. When roots thicken in a circling position, it is not possible to redirect them away from the trunk during the planting process. These roots can later become stem-girdling roots. If a tree with this condition is planted, it is likely it will not live as long as it should.

medium. In fact, the soil outside the root ball can be wet while the root ball potting medium is dry to the point that the tree is wilted or dying. Be sure to water the root ball and check it and the surrounding soil for dryness. In hot, dry summer weather, it may be necessary to check the root ball for dryness every 2 to 4 days. Irrigate the root ball more frequently than the surrounding soil during the first growing season.



Plant the tree so the root flare, also known as the root collar, is even with the surrounding soil. This may not be the same depth as the tree was growing in the container. Frequently, container-grown trees are planted too deep, or soil is added after the tree is placed in the container. If the tree is planted too deep in the container, remove the excess planting medium until the root flare is exposed. Measure the distance from the root flare to the bottom of the root system. The depth of the planting hole should equal this distance. If the root flare is covered with more than 2 inches of excess soil, consider returning the tree to the nursery for replacement.

It is important to cover the root ball surface slightly with soil or mulch to prevent moisture "wicking" from the light soil medium. Avoid planting the tree too deep. The root flare should be visible at the soil surface when planting is complete. Planting as little as 2 or 3 inches deeper than the surrounding soil grade can result in stagnation or death.



Because lightweight growing medium will dry out before surrounding soil, it is important to check the root ball for dryness to determine when watering is necessary.

Always remove the container from your plant, even if it is paper or peat. Large 3- to 5-gallon metal cans will need to be cut, while smaller 1 or 2 gallon cans can be removed by turning the plant upside down, then tapping the rim.

These suggestions promote a high degree of success in growing good landscape trees from container-grown stock.

Related Publications

- *Staking and Guying Landscape Trees* — MF1120
- *Selecting and Planting a Tree* — L870

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF1119 October 2018

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