

## Planting Techniques for Landscape Plants

In harsh winter climates, landscape plants are usually planted during the spring to help ensure their survival. If planted in the fall, severe winter conditions can lead to their demise. In the Maritime Northwest, however, planting time is an altogether different matter. In areas of the world where winters are moderate, scientists who have conducted research on the planting and establishment of trees, shrubs and perennials recommend fall planting. In regions such as ours, plants put into the ground in fall out-perform those planted in spring.

Soil is still warm in the fall, and this encourages roots to continue growing after they are transplanted. In addition, normal fall rains supply the moisture so necessary for newly transplanted plants. This eliminates the need for frequent initial irrigation, which would be required if the plants were planted in the spring and soon faced our summer drought.

Also helping, especially with evergreens, is the fact that the shorter, cooler days reduce the transpiration process. The disturbed, and perhaps reduced, root systems are therefore not called upon to pull the large amounts of moisture the plant would require in spring and summer's warmer and drier days. Roots have more time for growth before there is an increasing demand for water from the rest of the plant.

To make certain newly installed plants get the best chance at having a long life, attention should be given to planting procedures. Container-grown plants are often yanked out of their pots and stuck into poorly prepared holes in the ground. To avoid the high mortality rate associated with lazy or uninformed planting techniques, several important steps should be followed.

Unless you are landscaping a swamp or bog, it's necessary that trees and shrubs be established in well-drained soil. Poorly drained or poorly aerated soil will cause most plants to languish and die no matter how much post-planting attention you lavish on them. Any hole prepared for planting should be able to drain away at least ½ inch of water per hour, 1 inch is even better.

The planting hole should be dug only deep enough for the top of the root ball to be at or slightly higher than the soil line when the hole has been refilled. Any drainage problems would require that the hole be dug so that even more of the root ball is located above the soil line. How much above would be determined by how badly water drains through the soil. In an impervious clay soil, for example, it is best not to dig a hole at all. Install your plants on top of the soil surface in berms or mounds constructed with a better textured soil brought in from another location.

Planting holes should be dug so they are two to three times the diameter of the root ball. For larger plants, for example from a 15-gallon container, make the planting hole at least a foot wider in diameter than the root mass. The same is required for balled-in-burlap and bare-root plants. Make the holes as wide as possible. When planting burlap-wrapped plants, remove all string or twine. Cut and fold natural burlap away from the root ball. If the wrapping material is synthetic, it must be cut away and discarded. It should never be left in the hole when it is backfilled. In spite of what you may hear, plants in paper containers

should be removed from them before planting. If this isn't possible, cut away as much of the container as you can after it's put into the prepared hole. There should be nothing to impede the roots making their way out and into their new medium.

Container plants are grown in a highly organic, soil-less medium, and their roots will be put into the radically different soil that is in your landscape. You want the roots to move out and into this new soil as quickly as possible. Root balls in containers often have roots growing in a circle, and if the plant is put into the ground in this condition, the roots will often keep growing in a circle, and eventually they will girdle themselves. This leads to a root system that may not be able to hold the plant upright, and it also puts a great deal of strain on the physiological processes within the plant. Food manufactured in the leaves has a hard time getting into the root system, and mineral nutrients and water may have problems getting from the roots into the stems and leaves.

Before refilling the planting hole with soil, pull the roots out and away from the growing medium. If the roots are soft and fibrous, this can be done easily by crumbling away an inch or so of the growing medium and pulling the roots out. Make sure that these spread-out roots make direct contact with the backfill soil. If the circling roots are woody and resist being pulled away, they should be cut from top to bottom in at least four places around the root ball. Use pruning shears, loppers, or even a small garden saw. The cuts don't need to be deep; about an inch or so is fine. Once these cuts are made, it will be easier to spread the roots out into the planting hole so that they can make good contact with the backfill soil.

Do not add compost, fertilizer, or any organic amendment to the soil you use to fill in the hole. Use only the soil you removed. Research has shown that additions such as these will not improve plant re-establishment and growth. They will actually have a negative effect on the health of the plant. Plants should begin to grow and spread roots in the soil where they will spend the rest of their lives. Enriching the soil in the planting hole will encourage the roots to remain right there instead of expanding their territory. This will adversely affect the plant's stability, and the roots might become girdled if they remain in the planting hole going 'round and 'round. If you are planting an entire bed or larger area, this rule does not apply. You may amend the entire area, which will be large enough to encourage plants to spread their roots.

Don't prune the tops of newly transplanted plants; prune away only dead or diseased areas. You may also prune away crossing branches. Wait until spring when plants break dormancy to do more ambitious pruning.

06/11