

PLANTING TREES AND SHRUBS

Improper planting has probably caused the demise of more landscape plants than diseases, insects or other problems. Planting and establishing trees and shrubs is all about managing air and moisture in the soil. The most common causes of poor plant establishment are:

- Amending the soil in the planting hole
- Planting too deep
- Over watering
- Under watering

Soil Amendment

In the past it was recommended to add peat, manure, compost or other organic material to the planting holes of trees and shrubs, but recent research has shown that problems result from this practice.

Adding rich organic material to a planting hole creates a soil and root environment very different from the native, non-amended soil in a landscape. The interface between the two soil types creates a barrier that water and new growing roots won't cross. The result may be a planting hole that stays too wet and roots that stay within the original planting hole, becoming gnarled and stunted. The tree and shrub itself grows slowly, if at all, and may eventually die.

Woody plants are sold in three ways or types:

- bareroot
- balled and burlapped (B and B)
- containerized (potted)

Bareroot plants are sold with no soil, just the dormant plant that has been stored in a cooler, or heeled into moist bark. Bareroot plants are usually only available in the late winter and early spring. The selection and size is limited; most plants are young and therefore smaller. Fruit trees, roses and lilacs are the most commonly available. If they are healthy and planted correctly, bareroot plants establish very quickly and often grow more quickly than the other types. They are also considerably less expensive

Root balled or balled and burlapped plants are generally larger plants. Many trees, especially large shade trees and conifers are sold this way. They come with roots surrounded by soil held together with burlap or another material. They may or may not come in a wire cage. While less expensive than similar sized plants in containers, they are much more expensive than bareroot plants. They often have difficulties establishing in a landscape, because the roots have trouble crossing the interface between the soil in the root ball (usually clay) and your landscape soil. If the clay root ball is allowed to dry out, it is extremely difficult to get water to the roots as it tends to run down the outside rather than soaking in.

Containerized plants are in a pot of some kind and are generally more expensive. Most shrubs are containerized, and while the potting medium is easier to keep moist than a clay root ball, they do often suffer from drought stress. Very often the plants have been in the container too long and the roots have started circling around the edge which leads to girdling roots if not corrected at planting.

Proper Planting

Below are tips on the proper planting of newly purchased trees and shrubs:

For your safety and for the safety of your neighbors, always call 811 (the national hotline number) for a utility line locator at least 2 business days before you dig.

Look up when choosing a planting site. Check for overhead wires and security lights on buildings that can interfere with proper development.

Dig a shallow planting hole. The depth of the hole should not be deeper than the height of the root system. The width should be at least one and a half times the diameter of the root ball. Loosen the soil if it is compacted. The planting hole should be backfilled with the same soil that was dug out of it. Don't add fertilizer or organic matter. Water it immediately to settle the soil and force out air pockets. Keep the ground moist, not wet, to encourage good root development.

Mulching newly established shrubs and trees helps prevent moisture loss. This allows for slow water percolation into the root zone.

Limit pruning at planting time to removal of dead or damaged branches, removal of rubbing or crossed-over branches, and to shaping the plant. It is not necessary to remove top growth at planting time.

Planting New Trees

A swelling called the 'trunk' or 'root' flare is the area where the topmost roots join the trunk. The root flare (if visible) should be slightly above the surface of the soil when the tree is placed in the planting hole. Planting at the appropriate height will help assure the tree's success. If you can't see the trunk flare in a container-grown plant, remove soil from around the trunk until it becomes visible. If the tree sits too deep in the hole, remove it and firmly pack soil in the bottom of the hole. Soil amendments are not recommended. Cut or loosen roots that are kinked or that circle the top of the ball.

Add native soil around the roots. Do not compress the soil by stomping on it. Add several gallons of water that will infiltrate the soil and eliminate large air pockets. If you want to form a watering berm around the tree, you can use mulch that is less than four inches tall. This type of berm is beneficial if the tree will be watered with a hose.

Bare root trees are purchased early in the spring and planted before their buds open. Dig the hole twice the width of the root system and deep enough that the junction of roots and trunk is at ground level. Spread the roots out so that none are bent or circling.

Balled and burlapped trees are dug from nurseries with soil around their roots and wrapped with either biodegradable natural burlap or non-biodegradable synthetic material. Keep this wrapped rootball moist.

After the plant is in the hole, remove all strings or twine around the wrap. Cut away the burlap as far down into the planting hole as possible before backfilling with the native soil. Always remove non-biodegradable synthetic material.

If the soil around the root ball is different from the soil into which it is being planted, gently fork some of the soil away from the root system to expose surface roots before backfilling with native soil. Roots in contact with native soil will grow into that soil.

Container grown trees pose special problems. They are usually grown in a highly organic "soil-less" medium. By the time of purchase, plant roots often have grown out to the edge of the container and may even be circling around the pot. If roots are circling, make several vertical slices into the root clump to cut the circling roots. Then spread apart the root clump as much as possible.

As with balled and burlapped plants, set the plant into the planting hole so that the top of the root mass is at or slightly above the ground level. Backfill with native soil, making sure roots remain spread out in the hole while filling it in.

Watering Tips

Watering home landscape and garden plants properly is one of the most misunderstood yard chores. In many areas of the state, particularly in Eastern Washington, there is not enough rainfall to support plant growth during the period when water is critically needed. If landscape plants are water-stressed during the summer, they may experience other problems during the rest of the year, such as increased insect and disease susceptibility and decreased winter hardiness.

Water trees, shrubs and landscape plants inside and outside the dripline, or outer edge of the plant. In foundation or border plantings, it may be more convenient to water the entire area. A hose, soaker hose or various types of sprinklers may be used.

Important Watering Factors to Remember:

- Most plants in most areas of Eastern Washington need irrigation in the summer.
- Frequent, shallow watering leads to shallow roots increasing plant stress under drought or hot conditions.
- Water at the coolest times of day, preferably in the early morning, to reduce evaporation, and keep the leaves from staying wet overnight which can lead to disease.
- Too much water is as bad as, or worse than, too little. Rate of water application should be no more rapid than the rate at which the soil can absorb it.
- Conserve water whenever possible. It is a valuable resource that is becoming scarce.