

How to Plant Trees and Shrubs

How and when you plant a tree or shrub depends on how it is packaged, as follows.

Bare-root plants	<p>DESCRIPTION:</p> <p>BUYING TIPS:</p> <p>ADVANTAGES:</p> <p>WHEN TO PLANT:</p>	<p>Plants that have all the soil washed from their roots. Then the roots are wrapped with a moist medium, such as sphagnum peat, and packaged. They are in a dormant state.</p> <p>Do not buy (or plant) a bare-root plant that shows new growth.</p> <p>Economical. Most of their roots are intact, including the longer ones. Easy to inspect when planting. Easy to trim or remove damaged and girdling roots.</p> <p>When completely dormant</p>
Balled and burlapped plants	<p>DESCRIPTION:</p> <p>BUYING TIPS:</p> <p>ADVANTAGES:</p> <p>WHEN TO PLANT:</p>	<p>Plants grown in a field and dug up for transporting and planting. Many of the roots are left in the field. They are wrapped with burlap and tied with wire or twine.</p> <p>The root ball should be 10 to 12 times the diameter of the tree trunk measured 6 inches off the ground. The ball must be sound and unbroken. Avoid plants with a loose soil ball. Choose plants with good leaf color and plump stems and buds.</p> <p>Can buy larger plants. Most larger plants come balled and burlapped.</p> <p>Fall, winter or early spring</p>
Container-grown plants	<p>DESCRIPTION:</p> <p>BUYING TIPS:</p> <p>ADVANTAGES:</p> <p>WHEN TO PLANT:</p>	<p>Plants grown in a pot (usually plastic).</p> <p>Choose plants with good leaf color and plump stems and buds. Avoid plants with entangled, girdling roots that circle around the inside of the container. The girdling roots can be a physical barrier to future root growth and development.</p> <p>They have all of their roots. You can buy smaller plants. They establish faster, are more economical and are easier to handle.</p> <p>Anytime</p>

STEP 1 **Protect your plant on the way home.**

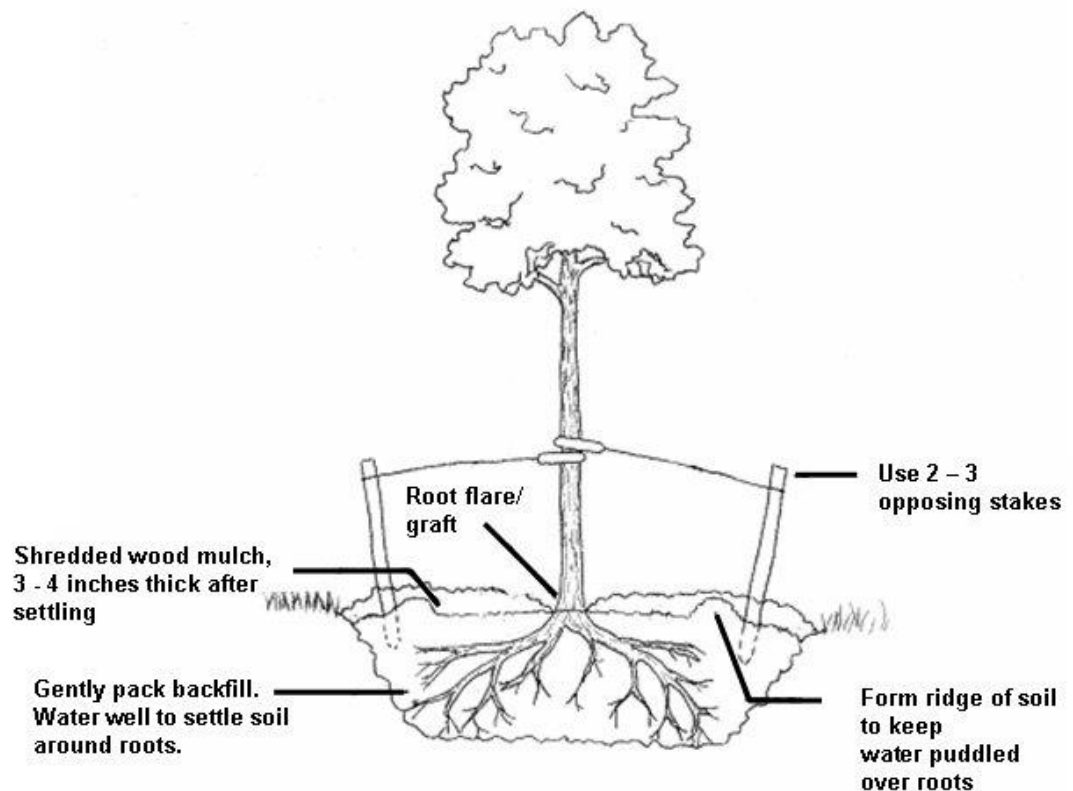
Take care to protect the roots, stems and foliage during transport.

- Shield the plant tops from the wind.
- Never pick up plants by the trunk or stem. Lift them from underneath or by the container.
- If materials can't be planted immediately, place them in a location protected from wind and sun. Do not let the roots freeze or dry out.

STEP 2

Dig the hole and place the plant in it.

Planting depth is the most important consideration in planting trees and shrubs. Do not plant too deep! A hole that is too deep will cause drowning or suffocation of the roots.

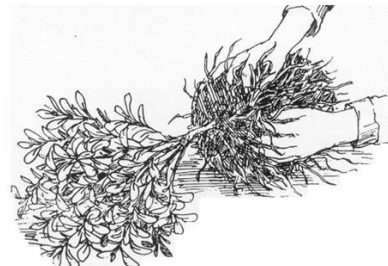


Bare root plants

- Inspect the roots and prune away any that are broken or damaged.
- Dig a hole large enough to let the roots spread out without crowding or curving around the wall of the hole and allow some space for growth.
- Rough the sides of the hole to provide easier penetration for roots and water.
- Make a mound of firm soil in the center of the hole.
- Spread the roots on a mound. Hold the plant so that the root flare (area where the roots and top meet) is at least 2 inches above the surrounding soil. This allows for settling of soil and roots so that the final depth is the same as or slightly above the surrounding grade. Trunk flare should be visible above ground level.

Balled and burlapped plants and container-grown plants

- a. Dig the hole three to five times wider and a few inches shallower than the root ball.
- b. Rough the sides of the hole to provide easier penetration for roots and water.
- c. Always handle the plant by the soil ball and never by the trunk or stem. Place the plant in the center of the hole on solid, undisturbed soil. Make sure the graft or trunk flare is 1 inch above the final soil surface.
- d. For balled and burlapped plants, do not disturb the roots.
After placing the plant in the hole, cut any twine from around the trunk and roots. Peel back the burlap or any other materials meant to hold the root ball together. Don't try to pull the burlap from under the plant. This may damage the root ball. Trim off as much as possible of the burlap and wire.
Remove all synthetic materials on the top and sides of the plant. It is especially important to remove any plastic liners, nylon strings or synthetic burlap type materials.
- e. For container plants, if they are root-bound, loosen the roots by cutting them up and down the root ball in four or five places. Untangle girdling roots on the bottom.



STEP 3

Backfill the hole with soil.

- a. Once the tree or shrub is correctly positioned in the planting hole, use the soil removed from the planting hole for backfill. If the original soil contains too much rock or construction debris, replace it with topsoil.

Backfill the soil into the hole a few inches at a time, firming the soil after each addition. Water while backfilling to remove air pockets and help settle the soil.

- b. Keep the plant level and vertical during this process. Be careful not to damage the roots.
- c. After the hole is filled to its original level, use the excess soil to build an earthen “moat” or saucer around the plant about 4 to 6 inches high and 6 to 10 inches from the outside edge of the hole. The moat should look like a donut, not a volcano. The moat allows water to collect around the plant and move slowly into the planting hole, minimizing runoff.

STEP 4

Apply mulch.

- Apply 2 to 4 inches of loose organic material — such as wood chips or shredded bark — in a wide circle around the new plant. Mulch suppresses weeds, conserves moisture and moderates the soil temperature.
- Keep the mulch 1 to 2 inches away from the stem or trunk of the plant to prevent damage from too much moisture.

STEP 5 Don't fertilize.

Do not fertilize the plant until the second growing season.

Exception: If you did a soil test that showed nutrients were missing, fertilize to compensate for the missing nutrients. To prevent root injury, never put dry pellet fertilizer or fertilizer spikes containing nitrogen in the backfill.

STEP 6 Stake when needed.

Unstaked trees tend to grow faster. Don't automatically stake a new tree unless it's apparent that it needs support or protection. Consider staking a new tree if:

- It was staked in the nursery.
- You plan to plant it in an open, windy site.
- It is quite large.

To stake a tree, drive two or three opposing stakes into solid soil around the plant. Use a soft rope or tape made especially for tying trees. Protect the bark by threading the rope through a short section of old garden hose. Remove the stakes after the first growing season.

STEP 7 Water adequately.

If the plant does not receive at least 1 inch of rain per week, water as needed to supplement.

STEP 8 Prune sparingly.

During the first year, prune very little. Remove only damaged branches. In subsequent years, prune to improve the structure of the plant. Remove branches that are damaged, overlapping, parallel, crowded or at a steep angle.

Sources

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