Staking

Unless necessary, trees should not be staked. Trees that are top heavy or on an exposed site should be staked to anchor their root balls so the roots can develop rapidly into surrounding soil. Drive three stakes into firm soil around the tree. Connect the stakes to the trunk with flexible straps designed for this use. Allow for movement in the tree for strong growth. Remove the stakes and lines after one growing season, or they will inhibit trunk development.

Mulching

Place mulch (pine needles, straw, bark chips, or slightly decomposed or shredded leaves) 2 or 3 inches deep around the plant. Mulch will prevent water loss and keep lawn mowers and string trimmers from getting too close to the plant. Avoid overly deep mulch or piling the mulch up against the stems or trunk; this promotes shallow roots, disease, and pest injury.

Spacing

Anticipate the mature size of trees. For instance, never plant a tree where its future height will interfere with a power line. Avoid placing trees too close to buildings, driveways, and sidewalks, since the roots of the fully grown plants may damage these structures, and the limbs and foliage may block windows and doors or interfere with foot traffic. Avoid planting trees too close to each other as they will be misshapened and less vigorous.

Fertilizing

Applying the correct fertilizer at planting helps ensure healthy trees. Incorporate a slow-release fertilizer, preferably composed of 25 to 50 percent water-insoluble nitrogen (WIN), into the soil backfill at planting time.

If your plant's growth is slow or its leaves appear paler than normal, have the soil tested (ask your local Extension agent for soil test forms and instructions) and follow the resulting recommendation. After the plant is established, check with your local Extension office to establish a regular program of fertilization.

For more information on selection, planting, cultural practices, and environmental quality, contact your local Virginia Cooperative Extension Office. If you want to learn more about horticulture through training and volunteer work, ask your Extension agent about becoming an Extension Master Gardener. For monthly gardening information, subscribe to *The Virginia Gardener Newsletter* by sending your name and address and a check for $5.00 made out to "Treasurer, Va Tech" to the Virginia Gardener, Department of Horticulture, Virginia Tech, Blacksburg, VA 24061-0349. Horticultural information is also available on the Internet by connecting with Virginia Cooperative Extension's server at http://www.ext.vt.edu

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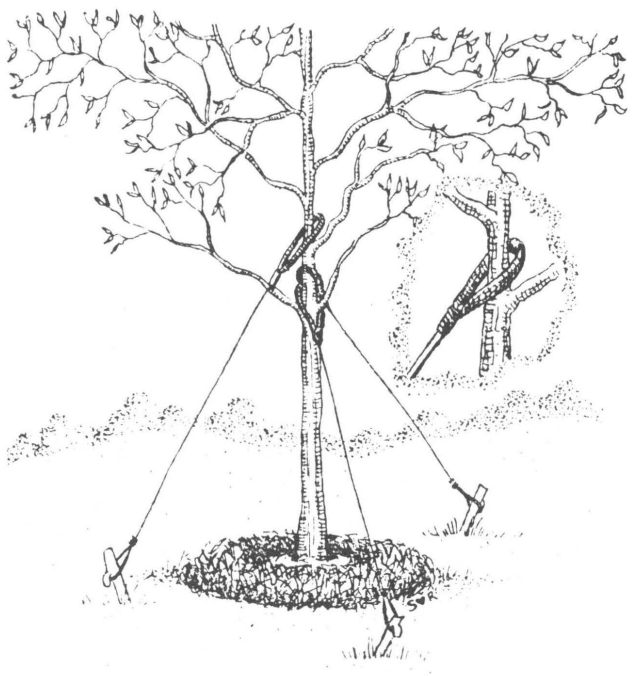

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Virginia Gardener

Planting Trees

Virginia Cooperative Extension

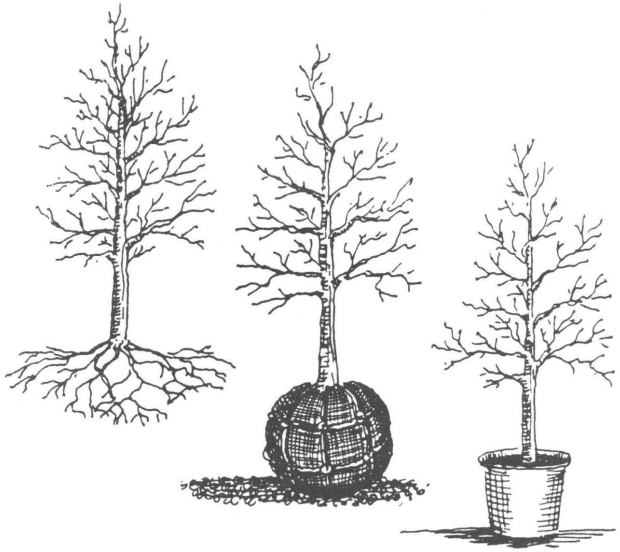
Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

VIRGINIA STATE UNIVERSITY

Planting Trees

Good landscape plants can increase property value, save energy, and provide privacy and beauty around your home.

Your tree will come in one of four forms: bare-rooted (deciduous plants only), balled and burlapped (B&B), container-grown, or containerized. Plant bare-rooted trees in the late fall, winter, or early spring when they are dormant. Do not buy or plant a bare-rooted tree which shows more than 2 or 3 inches of new growth. Container plants or balled-and-burlapped plants, however, may be planted at any time the ground is not frozen, except very hot weather.

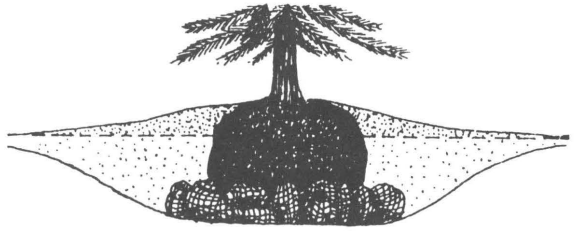


If possible, plant your tree as soon as you get it home. Otherwise, it may dry out and be injured. If you can't plant immediately, place it in a shady or sheltered spot. Cover the roots of bare-rooted plants with moist soil, sand, or peat moss. Keep the soil of balled-and-burlapped or container plants moist until planting.

Planting

Since wet soils can reduce plant growth and survival, you should plant in a well-drained soil. To test for soil drainage, dig the hole for your new plant and fill it with water. If the water doesn't drain in 24 hours, plant elsewhere.

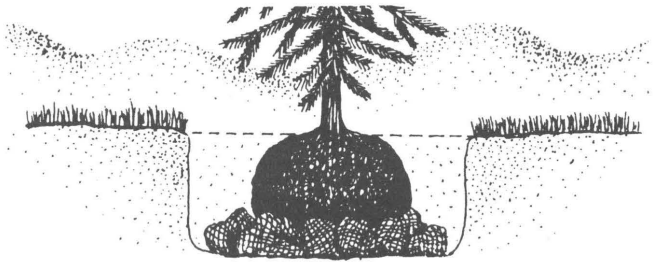
To plant the tree, dig a hole at least three to five times as wide as the diameter of the plant's root spread or root ball. Do not dig too deep; once the plant is placed in the hole, the top of the roots or root ball should be level or slightly above level with the surface of the ground. Remove all tags, wires, or ropes from the stems or trunk. **These can strangle and kill the plant as it grows.**



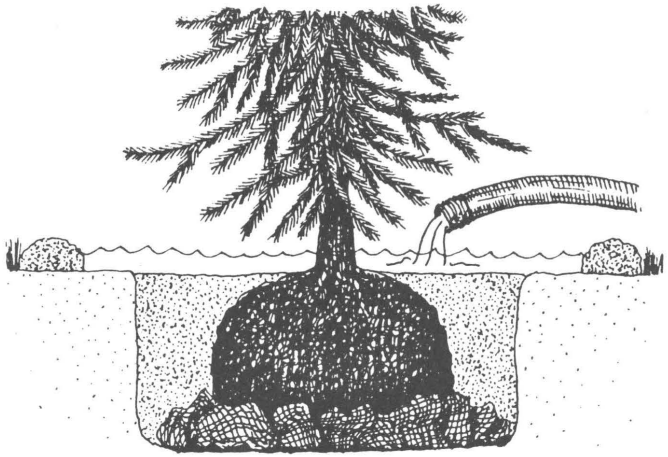
For very heavy clay or compacted soils, the root ball may be one third above the soil surface.

For container-grown plants, ease the pot off without disturbing the root ball and save it for recycling. Cut any circling roots, then place the root ball in the hole. For balled-and-burlapped trees, place the plant in the hole *before* removing the burlap covering. Then, to ensure root growth and access to nutrients and water, pull the burlap down off the root ball and leave it in the bottom of the hole. Do not attempt to pull the burlap from under the plant — this could damage the root ball. If a balled-and-burlapped root ball is enclosed in a wire basket, and there is no other covering, the basket can be left in place. Cut the wires off below the soil surface so they do not interfere with raking or cultivation.

Before planting bare-rooted trees, remove damaged or diseased roots with clean, sharp pruning shears. Untangle and spread the roots to a natural position. Then place the plant in the hole. Do not prune branches from a bare-rooted tree, as this may reduce the growth of new roots.



When replacing the soil in the hole, do not add organic matter. Instead, if the original soil, or backfill, contains too much rock or construction debris, replace it with local topsoil. When the hole is about three fourths refilled, straighten and level the tree, tamp the soil down carefully, and water heavily. Then fill the hole with backfill to its original level. Use excess soil to build a berm or ring 6 to 10 inches from the outside edge of the hole. Water heavily again to fill air pockets in the soil.



Watering

Watering during dry periods of the first growing season is crucial, especially with container-grown plants. Container and balled-and-burlapped tree roots dry out faster than the soil around them, so it is particularly important to monitor their soil moisture. In the nursery, the roots of container and balled-and-burlapped trees become concentrated in a small root ball which is watered daily. After planting, the roots of these trees will eventually spread into surrounding soil. Until that happens, however, the trees continue to draw water mostly from their root ball. Consequently, if the soil near the trunk is dry, the trees need water.

Water heavily once a week during periods of no rain. Use a garden hose to slowly soak the soil. Always allow the water to reach the top of the berm built around the plant. This will provide deep water penetration and encourage widespread root development. Always check the soil moisture before watering to avoid overwatering as this can kill the plant.