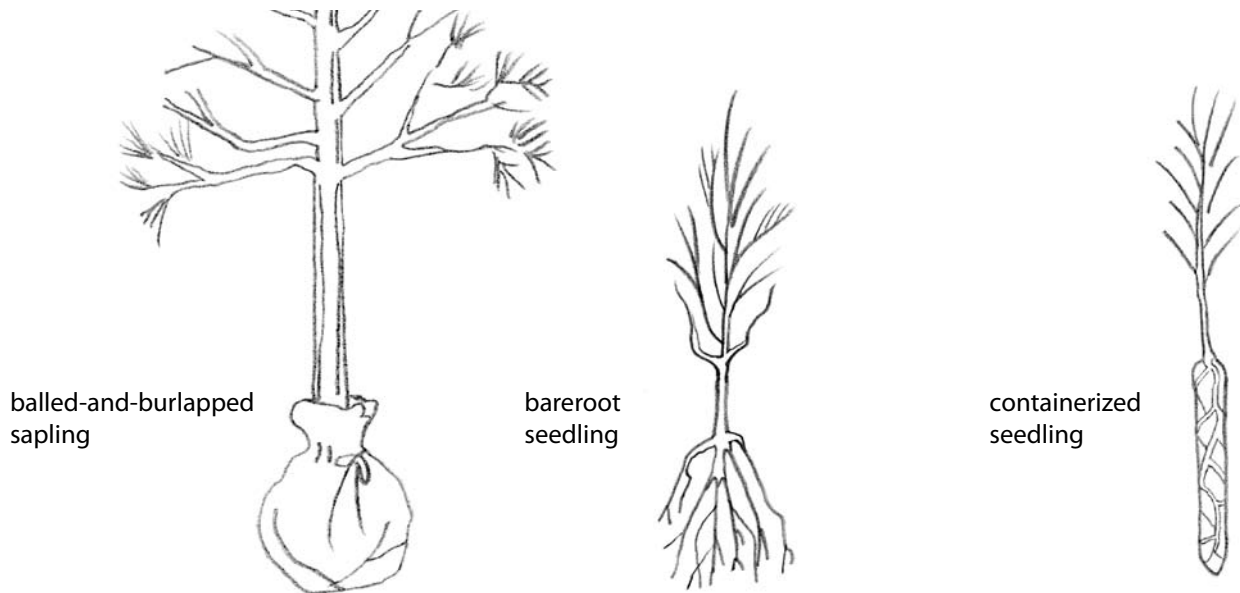


APPENDIX ONE HOW TO PLANT SAPLINGS AND SEEDLINGS AND CARE FOR A TREE



balled-and-burlapped sapling

bareroot seedling

containerized seedling

Roots of saplings are contained in a ball of soil, wrapped in burlap, and secured with string.

Roots of seedlings are bare but contained in plastic bags with wet newspaper, foam cells, or other container to prevent roots from drying out.

Roots of containerized trees are in a ball of soil encased by a removable container.

How to Plant a Sapling (Young Tree)

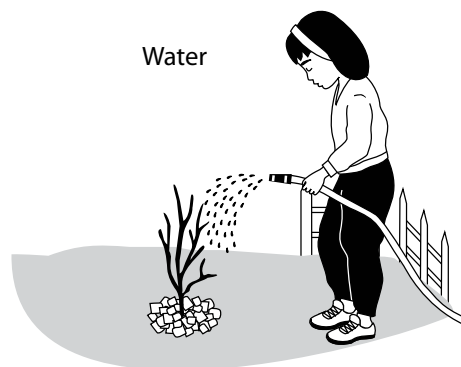
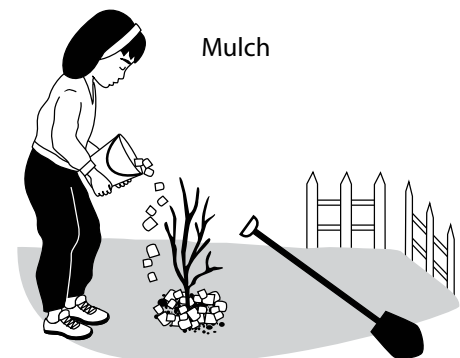
Saplings are young trees with a diameter of 1 to 5 inches at a point that is 4½ feet from the ground. Saplings may be balled and burlapped, bareroot, or containerized.

1. Choose a good spot for your tree. Don't forget its ADULT size.
2. Keep the roots moist all the time. Dry roots die.
3. Check for underground gas and utility lines before you dig! (Call the Gopher State One-Call at 651-454-0002 or 1-800-252-1166.) Measure the root ball, then dig a hole two to three times as wide as the root ball and as deep. If roots are container-bound, make a few cuts on the underside of the root ball and make sure to cut out any roots that encircle the root ball. Clip out any damaged roots.
4. Plant the tree at the right depth. In nature, tree roots begin at or just beneath the soil surface, and so should your newly planting sapling. Remove the excess soil until you find the first main root before you plant the tree. Planting the first root at or slightly below the soil surface is the correct planting depth. Remove any synthetic wrappings or fastenings, and pull the burlap away from the stem. If the burlap is tan or brown colored, you may leave it on the rest of the soil ball since this burlap will rot away in a month. If the burlap is green, remove as much of it as possible, or loosen it at the top and roll it back into the hole. Green burlap is treated to resist decay and can retard new root growth.
5. Add more soil and firm with your foot to remove air pockets.
6. Mulch with wood chips. Place chips 3 to 4 inches deep and spread from trunk out to drip line. Keep a small gap between the chips and the trunk to avoid diseases and fungi.
7. Remove any synthetic labels and tags.
8. Water the tree. (See "How to care for a newly planted tree" on page 45.) Wait for shade!

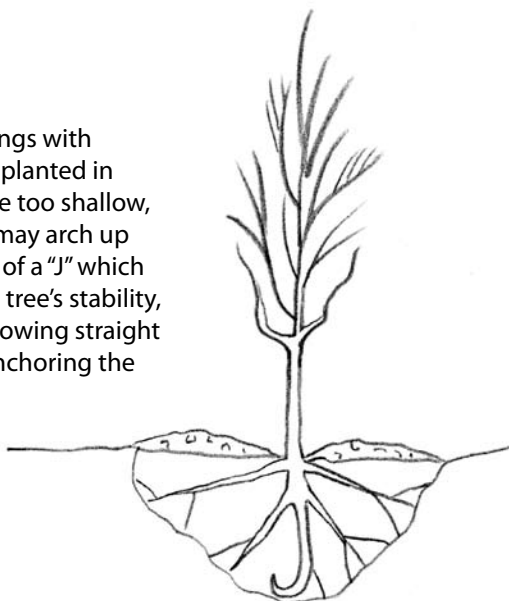
How to Plant Tree Seedlings

Seedlings are young trees with a diameter of up to 1 inch at a point that is 4½ feet from the ground. Seedlings are usually bareroot.

1. Plant the seedling as soon as possible. If planting must be delayed a few days, keep the plants in a cool (38–45°F), protected place with air circulation, like a refrigerator or unheated barn. Keep out of rain and wind. Keep roots damp, but allow excess water to drain. In cool, damp weather, the biggest threat to these trees is from mold.
2. Choose a good spot for the seedling. Check for underground gas and utility lines before you dig. (Call the Gopher State One-Call at 651-454-0002 or 1-800-252-1166.) Consider its adult size.
3. Brush aside loose organic material such as leaves and grass to expose soil. Don't let organic matter get into the planting hole where it can decompose and leave air spaces that may dry out the roots.
4. Plant seedling in ground quickly with roots straight down, not spread out. Make sure roots aren't curled or bunched up. When exposed, fine roots can dry out in less than a minute.
5. Place the first main root at or slightly below the soil surface.
6. Fill hole with loose soil to eliminate air pockets. Gently tamp with hands or feet to settle soil with water.
7. Mulch.
8. Water the tree!



When seedlings with taproots are planted in holes that are too shallow, the taproot may arch up in the shape of a "J" which weakens the tree's stability, instead of growing straight down and anchoring the tree.



How to Care for a Newly Planted Tree

Water deeply* and regularly. Water newly planted trees every 7-10 days. (One deep watering a week is enough.) Water the tree during dry periods for the first three years. Never give trees or shrubs a light sprinkling. It will encourage shallow root growth and may weaken the plant.

If trees are planted in fertile soil, no fertilizer is needed.

When you add mulch, do not place it next to the trunk of a tree where water can be trapped on the trunk and encourage rot, insects, or diseases.

Stake only unstable newly planted trees. After one year, most stakes can be removed.

Prune broken, dead, or rubbing branches. Trim away any secondary or competing “leaders,” but not the main leader! In most cases, applying a wound dressing isn’t necessary. The best time to prune trees is when they are dormant and after the coldest part of winter. To prevent spread of disease, **AVOID** pruning oaks or elms during the growing season (April through July). Watch out for power lines!

For long-term tree care, refer to the “Forest Health Web Resources List” at www.mndnr.gov/treecare/forest_health.

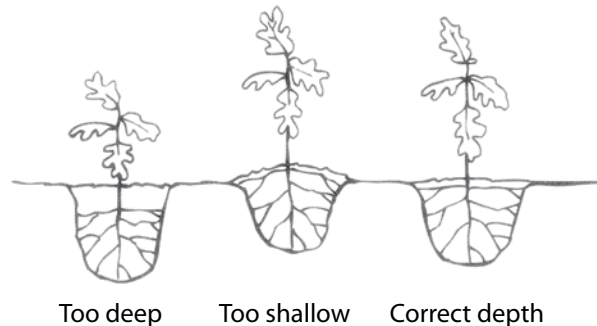
Tip

Unless you’re planting a small shrub or street tree in a small, confined space, avoid amending (improving) the soil in the planting hole. The “good” soil will encourage the roots to confine themselves within that small area rather than spread out as they need to.

* “Deep watering” is defined as 1 inch of water. To measure the amount of water applied to tree roots, use a small water sprinkler over the root area. Place an empty tuna can or other container within the zone where water falls. When the water reaches 1 inch, turn off the sprinkler.

Common Tree Planting Errors

- Storing seedlings in a bucket of water for more than a few minutes
- Allowing roots to circle root ball
- Planting hole too small
- Planting too shallow or too deep
- Not allowing proper root spread
- Air pockets in the soil
- Allowing taproots of seedlings to turn up (“J” roots)
- Planting over rocks or in dry soil
- Planting a species unsuitable for the site
- Failing to mulch
- Not watering enough on a regular basis
- Not visualizing the tree’s adult size



When planting balled and burlapped trees, take care to spread the roots away from the trunk. Roots that grow around the trunk may eventually girdle and kill a tree prematurely.

