

Planting & Care of Potted Hemlock Sapling

What You'll Need

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| <ul style="list-style-type: none">• Sharp-bladed shovel• Soil amendment (such as Mr. Natural Woodland Soil Mix, Nature Care Potting Soil, or MiracleGro Garden Soil)• Extra nutrition (such as Mr. Natural Worm Castings, Hen Manure, or homemade compost) if available• Slow-release fertilizer (such as Espoma HollyTone or any acid-based fertilizer labeled for azaleas, rhododendrons)• Ironite granules | <ul style="list-style-type: none">• Soil Moist or other water-saver crystals• MiracleGro Quick Start liquid• Bayer Advanced Tree & Shrub for 1 year of HWA protection• Water & 1-gallon jug• Shredded hardwood / cypress mulch• Bamboo stake• Roll of Velcro tape & scissors |
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Sources: See the [Contacts](#) page of our web site for sources of HWA Imidacloprid treatment products. You can get most of the other items at stores such as Home Depot, Lowe's, Walmart, hardware stores and garden centers. In north Georgia, you can usually find Mr. Natural products at Anderson Feed and Supply in Dahlonega 706-864-3364, Ash Brothers Feed & Farm Supply in Cleveland 706-865-2124, and Little G's Garden Center in Cherry Log 706-273-2012.

Note: Stores/products mentioned above are provided as suggestions only and are not meant as endorsements.

Choosing the Tree – Choose trees that are healthy and have good structure. If a tree is lightly infested with adelgids, it's still OK because you'll treat it as part of the planting process.

Size – The planting size of a containerized or balled-and-burlapped hemlock is limited only by the space available and your ability to lift the weight and dig an adequate hole. It is generally not recommended to try to plant a hemlock that is more than about 5-6 feet tall because of the size of dirt ball needed for the tree to survive.

Timing – The best time to plant a hemlock is early fall when the soil temperature is still warm enough to encourage root development but the air temperature is cooling down. Second best is late winter / early spring before the flush of new growth.

Choosing the Planting Site – Hemlocks can tolerate full sun if they have an adequate amount of moisture, but they prefer semi-shade or at least afternoon shade in a moist but well-drained (not soggy) location. The best setting is on a north- or east-facing slope, in a ravine, or near a stream.

1. Check for drainage patterns that would cause excessive dryness or soggy conditions. Avoid such areas if possible.
2. Note the texture and structure of the soil. Loamy soil or amended clay soil is best. Avoid sandy or pebbly soil.
3. If the goal is to have full, fluffy trees with branches to the ground, space them 15-20 feet apart. Hedge trees can be planted 3-4 feet apart.

*Note: Eastern hemlocks (*Tsuga canadensis*) require a pH range of 4.2 to 5.7. The soil in a woodland setting is normally acidic enough, but in a residential setting it may or may not be within the desired range. If you are in doubt about the pH of your planting site, contact your local Cooperative Extension Service agent about a soil test. If your soil is more alkaline than it should be, your Extension Agent can provide instructions for amending it. Never apply lime near a hemlock.*



Preparing for Planting

Note: Dig when the soil is either dry or just damp enough to make a clump when compressed. Don't dig when the soil is wet.

1. **Dig a SHALLOW BOWL-SHAPED hole** 3 times the width of the container or root ball (i.e., you could place the pot or root ball in the hole 3 times in a triangle) but only 2-3" deeper than the root ball. Pile the removed dirt next to the hole.
2. **Combine the native soil** removed from the hole with soil amendment in a ratio of 1 part amendment to 2 parts native soil. Put 2-3 inches of this soil mix back into the bottom of the hole
3. **Prepare soil additives mix** and put in snack-size baggies. Use 1 teaspoon each of HollyTone, Ironite, and Soil Moist for saplings up to 3' tall; use 1 tablespoon of each ingredient for larger saplings.
4. **Prepare the initial watering mix.** For each gallon of water, add 1 capful of Quick Start liquid and 4 ounces of Bayer Advanced Tree and Shrub. Put the water in the container first; then add the other ingredients. Keep the initial watering mix out of the sunlight until you're ready to use it.

Planting the Tree

Hemlock trees are shallow rooted, so the key to successful planting is to be sure the tree ends up "at grade," i.e., at the same level as it was originally in the ground or pot.

1. **Remove the tree carefully from the container** carefully by turning it upside down in your hands and catching the root ball. Gently "tickle" the root hairs so they're facing outwards. If the roots are pot-bound, use the scissors or other sharp tool to make several half-inch deep slits in the root mass to free them.
2. **Place the tree in the center of the hole** Be sure the top of the root ball is sitting at least 2 inches above the surrounding ground. If not, add more soil mix under the root ball.
3. **Refill the hole half way** with your soil mix from beside the hole.
4. When the hole is half full, **sprinkle soil additives** (Soil Moist, HollyTone and Ironite) all around the roots of the tree out to the edge of the hole but *not* on top of the root ball.
5. **Fill hole the rest of the way** with **soil mix** so it just covers the root ball and none of the root ball is visible. At this point, the top of the root ball should still be sitting about 2" above grade level. Firm the dirt *gently* with your foot so air pockets are eliminated and the top of the root ball is now level with the surrounding ground. Don't create a watering saucer.
6. **Apply 2 – 3 inches of shredded hardwood mulch** (not pine straw or nuggets) around the tree to conserve moisture, keep the soil temperature stable, and prevent weeds. Spread the mulch from the trunk out to the drip line and then pull it back a few inches from the trunk to avoid introducing insects or fungal growth.
7. Immediately after planting, **water thoroughly** but slowly right at the base of the stem, giving about a gallon of the **initial watering mix** per gallon of root ball size. Two or three hours later, firm the dirt again with your foot to eliminate any remaining air pockets and **water again with plain water**
8. **Staking** is usually not necessary for a small tree up to 3 feet tall. However, if wind is a problem, insert a bamboo stake into the planting hole right next to the trunk without damaging the roots. Wrap a 3-4 inch strip of Velcro tape **loosely** around the stake and main stem about 2/3 of the way up the trunk. Leave enough space in this loop of tape to insert your finger.
9. **During the establishment period** of up to a year, water with plain water once a week *if you don't have rainfall that week*. Keep the soil uniformly moist -- not too wet or too dry. Use ½ gallon of water for each gallon of original root ball size.
10. **Continue HWA protection.** Plan to retreat the tree with an Imidacloprid 75 WSP or Imidacloprid 2F or 2L product every 5th year in the spring.
11. **Giving additional fertilizer** after planting is usually not necessary, but if it seems necessary, wait at least 2 full seasons before doing so. Sprinkle close to the trunk and out to the drip line, and be sure to *follow the recommended dosage* on the product label as too much fertilizer can kill a plant. Do not apply lime anywhere near the hemlock.