

PLANTING TIME:

Spring and fall are the best times to plant. Trees have few demands before their leaves unfurl and after they drop.

Planting as soon as the ground becomes workable (and after the chance of damaging frosts has passed) helps trees become established before things heat up in summer. This allows them plenty of time to make and store food before the mercury drops again. The safest time to begin planting is usually right around Mother's Day in zone 4.

Fall planted trees are well on their way to dormancy. They require less water and fewer nutrients than they do during spring and summer, because they are done actively growing for the season. Mid-September is generally a good time to begin planting in autumn. By that time, temperatures are cooler and days are shorter. Once trees lose their leaves in October, they are essentially in hibernation. All they require is a thorough watering right before the ground freezes to insulate and protect them during the winter.

SOIL AMENDMENT:

It is a common misconception that trees should be planted in black dirt or potting soil. Actually, this can be harmful. Trees that are planted in loose, friendly soil produce tons of fine roots quickly. When these roots reach beyond the amended area, they may not be tough enough to endure their new surroundings. This can send trees into a second round of transplant shock right when they should be getting used to their new homes.

When black dirt is surrounded by a clay base, a bowl effect may also occur. Water will flow nicely through the good soil, only to be trapped by the clay beneath. Trees have been known to suffocate and drown in this situation.

When you dig the hole to plant your tree, simply reserve the soil you remove and use it to backfill around your new tree. Place the soil in a wheelbarrow or on a tarp. Then, if you discover that the material is too light or too heavy; it can easily be amended. Mixing 1/3 peat moss with the existing soil will improve its ability to hold water if it is too light and improve drainage if it is too heavy. Well-rotted compost or manure will achieve the same effect. However, only extremely gravelly or clayey soils should be altered. Planting in indigenous soils is always best if possible.

B&B PLANTING:

Ball & burlap trees are grown in a field until they reach a desired size, then exhumed with a mechanical spade and packaged for transport in a burlap-lined, wire basket. Some types of trees can only be spaded in early spring, while others can be dug in the fall after they drop their leaves. Evergreens can be spaded in late summer, after their new growth has matured. Once the trees have been placed in their baskets, baskets are secured to their trunks with twine and crimped tightly around their root balls. This not only makes the trees easier to transport and handle, it keeps their root systems intact while they recover and adapt to their new surroundings. A significant portion of the trees' root systems are removed during the spading process. Consequently, it takes a while for them to resume their normal growth rate after transplanting. Generally speaking, it takes about one year for each caliper inch of trunk diameter. Ball

and burlap trees give you instant size, but they require diligent care and attention for a few years after planting.

Before planting a ball and burlap tree, you need to remove all twine and shrink wrap from its wire and burlap package. At the bare minimum, the wire loops that fold over the top of the root ball should be bent back over the edge of the basket. This will allow you to cut the burlap off of the top of the root ball, above the basket. Doing so prevents the burlap from wicking moisture away from the exposed portion of the root ball. Alternately, you can completely cut off the top row of the wire basket. A bolt cutter will make short work of that and eliminate any chance of the root system being obstructed by the basket in the future. The rest of the wire basket and burlap liner should be left on. Removing it will only make planting more difficult.

The portion of the tree's trunk that flares (at its base) should be visible above the ground. Excess soil should be scraped off with a shovel if the root flare is buried. This prevents stem girdling roots from restricting water and nutrient flow over time.

Each planting hole should be dug at least 1- ½ times as wide as the trees' root systems. Depth is much more important however. B&B trees are heavy. They will settle after they are watered. Adjusting the planting depth of planted trees is no easy task. For this reason, it is best to plant ball and burlap trees an inch or two above grade and mulch over the exposed portions of their root balls. Remember, their root flares should remain visible at all times.

B&B trees can shift and lean a little bit as they settle. If this happens, it may be beneficial to stake them; to secure their positions while they root in. Three stakes systems seem to work the best. Fence posts and wires work just fine. However, nice soft straps (such as nylon) should be used as a barrier between trunks and guy wires. Straps should be monitored regularly, to keep them from cutting into tender bark. Stakes should not be left in place for longer than a year or irregular growth may result.

BARE ROOT PLANTING:

Bare root trees are grown in a field until they reach a set size. Once they fulfill the grower's demands, they are exhumed. Typically, this happens at a time of year when the plants are dormant. All of the soil surrounding their roots is shaken off mechanically. Once the trees are dirt free, they are placed in large coolers where temperature and humidity can be carefully controlled. They are held in suspended animation until the appropriate planting time arrives.

Bare root materials are quite finicky when it comes to temperature and moisture. They should not be allowed to freeze, but prefer to be kept cooler than 40 degrees. Roots should be covered with moist, organic materials such as clean straw or wood shavings until planting time. Roots that do not seem adequately hydrated should be soaked in water for an hour or so before planting.

Bare root trees are available in a wide range of sizes. Whether you want to start with a small sapling or a well-branched, adolescent tree; there are cost-effective options available. Bare root trees are economical because producers do not have to spend money on soils and containers. Shipping costs are generally lower too. Such plants weigh much less and can be packed more tightly than their container grown counterparts.

To make sure that bare root stock survives and thrives, it is important to get it planted as soon as possible after it arrives. Plants should be purchased from companies that receive or ship their products at the optimal planting time for your specific area. Here in Silver Lake, it is best to plant after Mother's Day, but before it gets too hot. Mid to late May is ideal. The supplier should also explain that some trees need to be "sweated". Sweating induces the buds to swell through increased warmth and humidity, as the name would suggest. Oaks, hackberries and birches all do best when their growth is stimulated through this process.

Bare root trees should be planted so that their grafts and root flares are clearly visible above the soil line. You will see a small bulge towards the base of each trunk. This is the graft. It will often look like a second trunk was pruned off at the graft location. This is healthy and normal and you should not try to hide it beneath the ground. Almost all trees are grafted these days. Below the graft, you will see the root flare. This is simply the portion of the trunk that flares out, right where it connects to the roots. This should also be visible above ground. Proper planting depth is really important. Burying trees too deeply can result in all sorts of problems. Some of these issues, such as stem girdling roots, are potentially fatal. Pack the soil firmly around each tree's roots. Check back on the trees after initial watering to adjust their positions and backfill if necessary. Staking may be necessary the first year after planting to ensure that trees root in straight and level.

Philosophies regarding pruning at planting time have changed a bit over the years. Growers used to recommend pruning the tops of trees to equal the size of their root masses. This strategy has fallen out of popularity. Most arborists and nurserymen now say that you should only remove broken and damaged growth during initial pruning. Anything that doesn't look right should be removed from both the tops and bottoms of trees, cutting back into healthy tissue. Then you should stop. As a matter of fact, it is beneficial to let unbranched, whip trees leaf out from the tips of their crowns to the ground during their first season in their permanent homes. This allows them to make as much food as possible to sustain them through their most critical winter. Formative pruning can start the following season, after the trees are well established.

When it comes to water, more is not always better. Apply a volume of water that is equal to or slightly greater than the size of the root system of each individual tree. See what size container your trees' roots fit into and that will give you a pretty good idea how much water they need at one time. Allow trees to drink before pouring more water on them. Roots need air, which they cannot get under water. Constant saturation stunts root systems and can even lead to rot. Allowing the soil to dry a bit stimulates root growth, as roots extend in search of water. Utilize mulch to keep the soil moisture more even and consistent. Don't let a wind burned, sun baked surface fool you into thinking that the ground is dry a foot below.

POTTED TREE PLANTING:

Potted trees are sort of a compromise between balled and burlapped trees and bare root ones. They are sold actively growing, which is reassuring to buyers. They cost less and weigh less than B & B trees, which is another bonus. Homeowners can generally handle planting potted trees without special equipment or outside help. Generally speaking, potted trees experience less transplant shock than B & B trees, because their root systems experience less trauma during the production and transplanting processes. [However, it is beneficial to shave off the edges of their root balls before planting. To accomplish this, first remove them from their pots. One at a time, have a helper stabilize each tree in an upright position. Then, take a sharp spade \(or even a Sawzall®\) and square off the rounded edges of](#)

each root ball. The roots and surrounding soil should be shaped like a rectangle (as opposed to a three-dimensional, vase shape) when the process is complete. Tree authorities used to recommend scoring root systems or carefully unwinding them, so that they would break out of the habit of growing in a circle and root into their new environments more quickly. What they have learned through a series of experiments, is that roots revert to growing in a circle if they aren't sheared off more abruptly, as described above. Minor injuries that result from scoring stimulate growth. New roots grow outward instead of following the curvatures of the root balls. As with bare root trees, it is important to plant potted trees with their grafts and root flares exposed. If you do not see both of these areas, carefully remove soil with a shovel to reveal them before planting. A few months of being planted too deeply in pots won't harm the trees, but a few years will. Potted trees may require staking, but it is best to see if they can support themselves before you take that step. There is no benefit to staking trees that can hold their own.