



Are You a Tree Hugger?

BY JEFF WOODWARD

Why Are Trees So Great?

Anyone who has ever escaped the heat on a hot summer day by sitting in the cool shade of a tree knows what a godsend they can be. But trees do more than just provide us with shade. Trees have significant conservation benefits for the environmentally-minded homeowner. They act as carbon sinks by removing carbon from the air and storing it in their trunks, branches, roots, and leaves. Boulder's urban forest stores about 110,000 tons of carbon and removes an additional 2,000 tons per year. Trees also reduce energy consumption during the summer by transpiring water and shading surfaces. It can be up to 25 degrees cooler under the shade of a tree during the summer. In Boulder this translates to a reduction of energy costs by \$1,650,000 citywide every year (Boulder City Green report, 2000). Whether you are interested in their environmental benefits or you just want to bask in their shade, trees are a good bet.

Choosing a Tree That's Right for You

You've decided you want a tree, but which one is for you? The first step in selecting a tree is determining why you want it. Do you want a large shade tree as the centerpiece of your landscape? Do you want a small flowering tree to add some color to your yard? Are you looking for a stout evergreen as a windbreak? The answers to questions like these will narrow your search considerably.

Once you are clear about why you want a tree it is time to think about where you want it. Are there power lines or other objects that could limit the tree's height when mature? Is there plenty of room for the tree roots to expand, or will roots be blocked by roads or buildings? You will need to be sure your yard can support the tree you want. Be forewarned: Boulder County is not an easy place for most trees to grow. Our dry climate and poor, clay soils create difficult conditions for trees. It's important to have a soil test done prior to choosing a tree species; many species are not well-suited for alkaline (or high pH) soils. There are, however, many tree species that do exceptionally well in Boulder. Both the City of Boulder Parks and Recreation Urban Forestry Division and the CSU Cooperative Extension have lists of trees that thrive in Boulder's climate.

Finally, you will need to pick your tree. When you select a tree at the nursery, take time to make sure you're choosing the right one. Look at its branch structure; if the branches are clustered on one side or at the top, it will be hard to prune to the symmetrical shape that most of us want. Unwrap the trunk and examine it for damage or insect/disease problems. Disease will often appear as a discolored area on the trunk or branches. Gently push the trunk back and forth; does the soil ball around the roots move with it, or does the ball stay still, signaling damaged roots? Picking a healthy tree initially will help to ensure you enjoy your tree for years to come.

Planting Your Tree

So you've got your tree, and it's time to plant it. The best time to plant a tree is in the early spring or fall. If trees must be planted in summer months, choose a cool, cloudy day with low winds to reduce the stress on your new tree.

Forty-eight hours before you dig, call the national utility digging hotline at 811. They'll make sure that you're not going to hit an electric, gas, or sewer line. Dig a hole at least 3 to 5 times as wide as the root ball; roots will grow out horizontally in the top 12 inches of the soil and grow much better in loose soil. Don't plant your tree too deeply! Find the root flare, the place where the roots spread at the base of the trunk. Ensure the root flare is 1 to 2 inches above the final grade. Make sure that the bottom of the hole is firm where you want to place the tree; you don't want the tree to sink once you've planted it.

When planting, first place the tree in the hole, then remove all packaging (wire, burlap, twine, container) from the rootball. Make sure the tree is straight in the hole; have a friend view it from several angles. Fill in the excavated soil a few inches at a time, alternating with water to settle the soil. Don't step on the soil to settle it; use water.

Most trees will grow best without any staking or guy lines. However, if your tree is in an exceptionally windy location or you have concerns about lawn mower damage, staking may be necessary. Use two stakes with a wide, flexible tie material on the lower half of the tree.

WHAT'S UP WITH WALNUTS?

During the last few years many of Boulder's Black Walnut trees have shown up dead or dying. It appears that a combination of a beetle and a fungal cancer complex is killing the trees. Infected walnuts need to be removed and chipped immediately.

Attacked trees usually have yellowing, browning, and wilting foliage, starting from the top of the tree and progressing downward.

The brown leaves often remain attached to the branch after the branch dies.



The culprit appears to be a combination of the Black Walnut Twig Beetle and one or more fungi, including the Fusarium Canker fungus. Many walnuts are easy targets because they are still stressed from root dieback that occurred during the 2002 drought. The beetles transport the fungus to healthy trees, and some combination of the two kills the trees. Black Walnut Twig Beetles have moved northwards from their native homes in the southwestern US and northern Mexico and arrived in Boulder in 2004.

If you have an infected tree, you should contact a tree care professional immediately to examine the extent of the damage. If less than 30% of the tree is dead, your tree may be able to recover. Either way, all infected wood needs to be cut down, removed, and chipped to prevent the spread of the beetle. Infected wood cannot be used for firewood.

If you have healthy walnut trees, there are a few things you can do to protect them. Make sure that any infected trees nearby are removed and that the wood is chipped. Keep your tree properly watered and avoid any landscaping or construction that will damage the tree's root structure. For more information about walnuts, contact the City of Boulder Parks and Recreation Urban Forestry Division.

Giving Your Tree the Love and Care It Deserves

Keep your young tree's soil moist but not soaked. For the first two years, focus the watering efforts directly on the rootball. After two years the tree roots extend past the planting hole and you can water farther out. Watering can be a challenge at first. The best way to determine whether your tree needs water is to check the soil moisture. Sometimes the rootball can dry out; other times the planting hole can act as a bowl, collecting a large pool of water. To check soil moisture, examine the soil a few inches below the surface. If the soil is moist and rolls into a ball between your fingers, the tree doesn't need water. If the soil is dry and won't form a ball, your tree needs to be watered.

Gradually reduce watering in the fall to allow your trees to go dormant, but continue routine watering through the winter. Watch the winter weather closely! If we have a warm, dry winter, trees need supplemental watering. Although most tree parts are dormant, root growth may occur during winter months, and roots need water to stay hydrated. Check the soil moisture once a month; if soil is dry, water your trees. Water when temperatures are over 40 degrees and when the soil is not frozen. Your tree will be much happier in the spring with a bit of winter moisture.

Watch Out for Drought!

Be especially mindful of your watering practices during a drought. Drought stresses can harm trees for several years after a drought, leaving them susceptible to disease and insect damage. Water trees deeply, to a depth of 12-18 inches. Use approximately 10 to 15 gallons of water per inch of trunk diameter. Watering frequency during drought depends on the size and health of the tree and soil moisture conditions; for small trees water once per week, for large trees water twice per month. Mulch helps to preserve moisture in the soil, moderate soil temperature extremes, and discourage competing weeds. A 2 to 4 inch layer of mulch is ideal. Keep a mulch-free circle of 2 to 4 inches around the tree trunk to protect the bark at the base of the tree.

Protect Your Investment

Even established trees are vulnerable to physical damage. Tree roots are just as sensitive to damage as the trunk or limbs. Plan any construction or landscaping projects to avoid root damage. Most roots are within 6-18 inches of the soil surface and extend well beyond the dripline of the tree. Avoid cutting large roots, grade changes that alter the soil depth, or parking vehicles or other heavy items on top of the roots. Trees may not show symptoms of root damage for several years after the damage occurred.

The best way to protect your tree from insect and disease problems is to care for it properly. A tree sited properly, with a healthy, intact root structure that receives the right amount of water is much more likely to avoid and withstand problems with insects and disease. Many insects target damaged or water-stressed trees. If you see signs/symptoms of an insect or disease on your tree, contact a certified arborist or the CSU Cooperative Extension.

Want More Information?

For more information about Colorado trees and tree care, consult the City of Boulder Parks and Recreation Urban Forestry Division website at www.bouldercolorado.gov/parks-recreation or Colorado State University's Cooperative Extension at www.ext.colostate.edu/.



TREES ACROSS BOULDER

THE CENTER FOR REsource CONSERVATION AND THE CITY OF BOULDER HAVE PARTNERED TO OFFER THE FOLLOWING TREES TO BOULDER RESIDENTS TO PROMOTE SPECIES DIVERSIFICATION AND IMPROVED WATER QUALITY. THE SPECIES WERE CHOSEN BY THE CITY'S URBAN FORESTRY DEPARTMENT FOR THEIR ABILITY TO THRIVE IN BOULDER.

COST: \$50 PER TREE
SIZE: 1.25 CALIPER INCH
HEIGHT: SAPLINGS RANGE FROM 5-8 FEET AND COME BALLED AND BURLAPPED

PRE-ORDER YOUR TREE AT: WWW.CONSERVATIONCENTER.ORG AND THEN PICK UP YOUR TREE ON SATURDAY MAY 3RD AT 5200 PEARL ST. FREE MULCH WILL BE PROVIDED THE DAY OF THE SALE!

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WESTERN CATALPA

RUBY RED HORSECHESTNUT

HACKBERRY

THORNLESS COCKSPUR HAWTHORN

CLEVELAND SELECT PEAR

BUR OAK

RED OAK

