

## Introduction

So you're thinking about buying a tree. Do you know which trees do best in your area? Have you thought about how to properly plant your tree to ensure it survives and grows well? Do you know how to ensure good health and longevity for the tree you plant?

This book will help you select, plant, and care for a new tree, much as your car owner's manual does the same for a new vehicle you might buy. With the proper forethought, your new tree will be an asset to your landscape for years to come.

#### Buying a tree is an important decision

Although you may be buying a tree to add beauty to your home landscape, trees also serve other important functions in your landscape. For example, did you know:

- **Proper placement of trees** can reduce heating and cooling costs by as much as 10 to 20 percent
- Landscaping your home can increase the value of your property. Houses with mature trees sell for 6 to 12 percent more than houses on lots without trees.
- Trees and shrubs conserve water, air, and soil and provide habitat for wildlife. Shade trees provide living, nesting, and gathering places for many birds and animals and offer shelter year round. Trees and other plants with abundant fruits and seeds are particularly attractive to birds.
- Large shade trees act as an outdoor "ceiling" and give a more intimate feeling to your yard and street. Trees and shrubs can block an undesirable view, enclose an area for privacy, or separate one area from another.
- Trees also cleanse the air by absorbing carbon dioxide and giving off oxygen, which all organisms—including people—need to survive.

Your local nursery or landscape professional can help you consider plant characteristics and environmental factors to design a functional, attractive landscape. Remember that your own satisfaction with the trees and design is most important. You, more than anyone else, will care for and enjoy this tree.



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Photo: Lynn Ketchum, © Oregon State University

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Pruned Pines:\_dno1967/ CC BY-NC-SA 2.0

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Photo: Colorado State University

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Photo: Sacramento Tree

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## A Landscape Plan for Your Yard

#### Before buying, think about what you need and where it should go

Consider your planting site carefully. Keep in mind that planting trees on your property affects your neighbors. And while a properly located tree can increase your property value, planting the wrong species, or even the right species in the wrong place, can lead to frustration and costly replacement. Even the best tree will not contribute to your landscape if it is planted in an unsuitable place.

So, before you decide what to plant, decide where to plant. Let the planting location dictate the tree species you select, rather than the other way around. Often people decide on a certain tree species, then have difficulty finding a place for the tree. If you have your heart set on a particular species, carefully seek out a proper location for it.



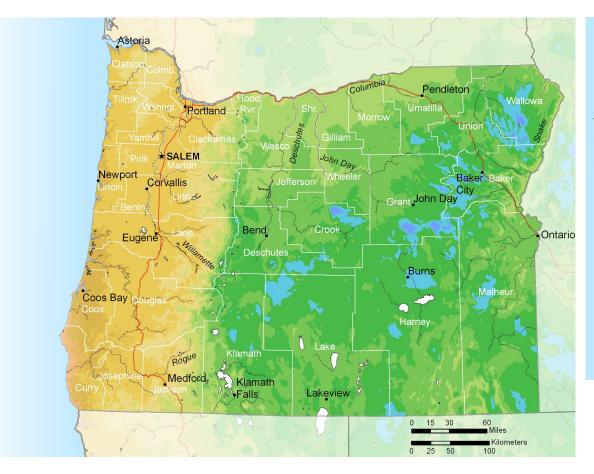
Photo: Lynn Ketchum, © Oregon State University

#### **Cold Hardiness Zones**

Oregon is a geographically diverse state, blessed with mountains, deserts, valleys, and coastlines. Some areas of the state are dry, while others receive abundant rainfall. Where you live affects the types of trees you can plant and expect to flourish. For example, a tree that grows well in the Willamette Valley may struggle to survive in eastern Oregon.

The U.S. Department of Agriculture Hardiness Zone Map shows the ratings assigned to various microclimates within Oregon.

Hardiness zones are based on the estimated minimum temperature in a given area. Trees found in the nursery or garden center are rated to a cold hardiness zone or degrees above or below 0°F. Use this map to determine the cold hardiness zone for your area.



## Annual average extreme minimum temperature 1976–2005

1770 2003							
Temp (F)	Zone	Temp (C)					
-25 to -20	4b	-31.7 to -28.9					
-20 to -15	5a	-28.9 to -26.1					
-15 to -10	5b	-26.1 to -23.3					
-10 to -5	6a	-23.3 to -20.6					
-5 to 0	6b	-20.6 to -17.8					
0 to 5	7a	-17.8 to -15					
5 to 10	7b	-15 to -12.2					
10 to 15	8a	-12.2 to -9.4					
15 to 20	8b	-9.4 to -6.7					
20 to 25	9a	-6.7 to -3.9					
25 to 30	9b	-3.9 to -1.1					

#### **Picturing your yard**

Start by thinking about what you want your yard to look like in 10 or 20 years. The key to analyzing a planting site is to envision it with a full—grown tree. Although your new tree probably will be only 5 or 10 feet tall, it may grow to 50 or 100 feet. Keep this in mind when selecting a planting site.

Next, take inventory of site factors such as:

- Available growing space, prevailing wind direction, and sun exposure
- Potential site conflicts with other plants
- Type, depth, and quality of soil
- Availability of water
- The function you want the tree to serve (beauty, shade, privacy, etc.)

#### Points to consider about your planting site:

## Does the site provide enough room for the tree's crown and roots to grow? Are the prevailing winds and sun exposure conducive to its growth?

Consider other trees, buildings, or landscape features near the site. Again, keep in mind the mature height of the tree you're about to plant. What looks like enough room now may look very crowded after 10 years of growth. Tree roots need space too, and don't like to be confined by sidewalks, driveways, or house foundations. Some trees tolerate shade, others prefer full sun. Some trees have shallow root systems, so you may need to stake the tree for the first year.

#### Are there utility wires or other obstructions nearby or overhead?

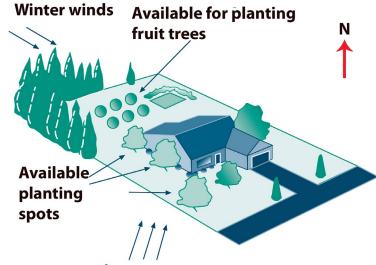
If there are overhead wires on your property, avoid planting large shade trees within 25 feet of them. Planting large trees such as Douglas–fir or maples underneath power lines could cause power outages and increased maintenance costs. Eventually these trees will require severe pruning. If you must plant directly underneath wires, select a tree that will be less than 30 feet at maturity.

## What is the soil like? Sandy or clay? Poorly drained or well drained? Is there an adequate water source?

The health and vigor of your tree will greatly depend on the quantity and quality of the soil in the planting site, so investigate the soil before you plant the tree. Soil near houses tends to be highly compacted, a less than ideal growing condition. Tree roots need loose or uncompacted soil because they must have oxygen for growth. If you have sandy or clay soil, peat or compost can increase the air space and improve drainage.

## What function will the tree serve? Will you choose a shade tree, an ornamental tree, or a conifer? Should the tree serve as a windbreak or privacy screen?

The purpose of the tree is an important consideration. For example, if you're looking for a privacy screen, a maple is a poor choice because it doesn't hold its leaves year round. However, a cedar is ideal for this purpose. If the tree's primary purpose is shade, an oak, maple, or ash may be at the top of your list.



Summer winds and solar radiation

## Choosing the Right Species What to look for in a tree

After considering what type of tree you need and evaluating your planting site, visit a nursery or garden center. Take your site plan with you. Avoid buying the cheapest tree you can find, because you may pay for it later. The cheapest tree available may be an undesirable species, have poor form, or have some other problems. The following list of tree types should help narrow your selection to the trees that best suit your reason for planting.

**Shade trees** are deciduous, meaning their leaves turn color and drop off in the fall. They are best planted at least 25 feet away from houses, buildings, or other obstacles. Shade trees can range from under 35 feet to 50 or even over 100 feet tall at maturity. Avoid planting shade trees under utility lines or too close to other trees unless you plant a small species.

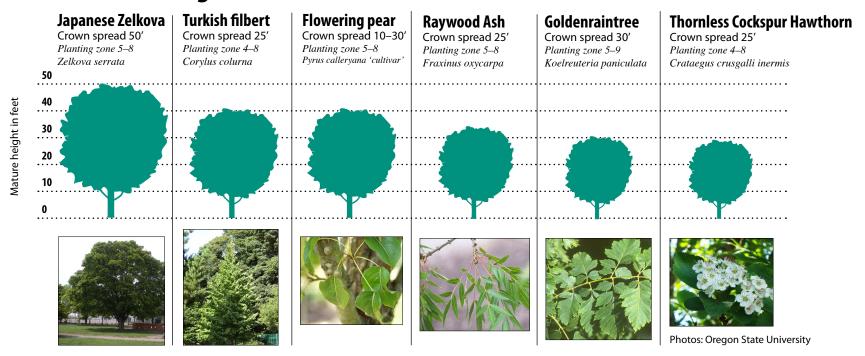
**Ornamental trees** are usually chosen for a particular characteristic, such as spring flowers, fall color, an attractive bark, or crown form. These trees range

anywhere from 25 to 50 feet tall at maturity. Small, ornamental trees work well under utility lines or in confined spaces. These trees should have a mature height of less than 25 feet. Ornamental trees are sometimes referred to as "exotics," but this term is better suited for trees growing outside of their normal environment, such as palm trees in Oregon.

**Conifer trees** ("evergreens") have needles or needle-like leaves that usually stay green all year. Conifers are the best choice for windbreaks and privacy screens.

**Native trees** are those that grow naturally in Oregon. Douglas–fir, ponderosa pine, Oregon white oak, vine maple, big leaf maple, and numerous species of spruce, fir, cedar, and other deciduous trees are native to Oregon. Native trees fit well in the home landscape, especially along streams or open areas, but might not be suitable for all sites and situations in urban areas.

## Trees for tough sites These trees do well in poor soils, urban conditions, or temperature extremes



## Trees for fall color These trees produce spectacular autumn foliage.

70	Red Oak Crown spread 70' Planting zone 5–8 Quercus rubra	<b>Sweetgum</b> Crown spread 45' Planting zone 5–9 Liquidambar styraciflua	Red Maple Crown spread 40' Planting zone 4–8 Acer rubrum	Flowering Cherry Crown spread 10–30' Planting zone 4–8 Prunus serrulata	<b>Gingko (maie)</b> Crown spread 35' Planting zone 4–8 Ginkgo biloba	Flowering Pear Crown spread 10–30' Planting zone 5–8 Pyrus calleryana 'cultivar'
e height in feet						
30						
					To the state of th	

## Trees for under utility wires Low-growing species well-suited for under power lines

50	Goldenraintree Crown spread 30' Planting zone 5–9 Koelreuteria paniculata	Amu Maple Crown spread 15' Planting zone 4–7 Acer ginnala	Glorybower Crown spread 25' Planting zone 6–8 Clerodendrum trichotomum	Kousa Dogwood Crown spread 25' Planting zone 5–8 Cornus kousa	Japanese Lilac Crown spread 20' Planting zone 4–8 Syringa reticulata	Mount Fuji Cherry Crown spread 20' Planting zone 4–8 Prunus serrulata 'Shirotae'	Vine Maple Crown spread 20' Planting zone 4–8 Acer circinatum
teet	0						
ية. ع ند غ	0						
Mature heig	0						
							Photos: Oregon State University

## Trees for the Oregon Coast These trees are suited to moisture and high winds.

	100	Sitka Spruce Crown spread 30' Planting zone 6–8 Picea sitchensis	Jacquemontii Birch Crown spread 30' Planting zone 4–8 Betula utilis var. jacquemontii	Shore Pine Crown spread 15' Planting zone 6–8 Pinus contorta	Scotch Pine Crown spread 15' Planting zone 4–8 Pinus sylvestris	Mountain—ash Crown spread 20' Planting zone 4–8 Sorbus americana	Vine Maple Crown spread 20' Planting zone 4–8 Acer circinatum
eet	80						
height in f	60						
ė	40						
Matur	20						

## Trees for spring flowers These trees put on a show of color and fragrance in the spring

	•				
Flowering Crabapple Crown spread 10–30' Planting zone 4–8 Malus 'cultivar'	Flowering Pear Crown spread 45' Planting zone 5–8 Pyrus calleryana 'cultivar'	Flowering Cherry Crown spread 10–30' Planting zone 4–8 Prunus serrulata	Eastern Redbud Crown spread 20' Planting zone 4–8 Cercis canadensis	Thornless Cockspur Hawthorn Crown spread 25' Planting zone 4–8 Crataegus crusgalli inermis	Star Magnolia Crown spread 15' Planting zone 4–8 Magnolia stellata
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0					Photos: Oregon State University

## Trees for energy conservation These trees help shade your home, reducing energy costs.

	100	<b>Deodar Cedar</b> Crown spread 75' Planting zone 6–8 Cedrus deodara	Horsechestnut Crown spread 50' Planting zone 4–8 Aesculus hippocastanum	American linden Crown spread 50' Planting zone 5–9 Tilia americana	Red Maple Crown spread 40' Planting zone 4–8 Acer rubrum	Katsuratree Crown spread 40' Planting zone 5–8 Cercidiphyllum japonicum	<b>Tuliptree</b> Crown spread 50–70' Planting zone 4–8 Liriodendron tulipifera
feet	80						
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e height ir	40				<u>,                                    </u>		
Mature	20						
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## Trees for water conservation These trees require little watering beyond early establishment.

100	Hackberry Crown spread 35' Planting zone 6–9 Celtis occidentalis	<b>Yellowood</b> Crown spread 35–45' Planting zone 4–8 Cladrastis kentukea	<b>Turkish filbert</b> Crown spread 25' Planting zone 4–8 Corylus colurna	Eastern Redbud Crown spread 20' Planting zone 4–8 Cercis canadensis	Amur Maple Crown spread 15' Planting zone 4–7 Acer ginnala	Canada Red Chokecherry Crown spread 15' Planting zone 4–7 Prunus virginiana 'Schubert'
Wature height in feet <b>60 60 60 60 60 60 60 60</b>						
						Photos: Oregon State University

## Planting Your Tree Keys to a successful start



Photo: Colorado State University

It has been said that anyone can plant a tree. While this may be true, not everyone knows how to plant a tree correctly. What follows are step-by-step instructions for planting a tree.

#### **Planting season**

Plant shade and ornamental trees during the dormant season when there are no leaves on the tree. In western Oregon, plant trees between November and April. In eastern Oregon, there are two planting seasons: early to late fall (September to November) until the ground freezes; and in spring just after the ground has thawed until late May.

Avoid planting trees in hot, dry weather.



Photo: University of Massachusetts/Amherst

#### **Transporting**

Trees are often damaged or stressed during the trip home from the nursery. Take special care to reduce injuries by using the proper vehicle when loading and unloading your tree. Before transporting, protect the buds (or leaves) and needles from the wind by wrapping or covering them. Cushion stems and branches, particularly if they rub against the vehicle. Tie the tree securely and avoid high-speed travel. Often the cost of delivery is worth the reduced damage to the tree.



Photo: <u>Trees for planting</u>: Samuel Bietenholz/ CC BY–NC–SA 2.0

#### **Temporary storage**

Plant your tree as soon as possible. If you must store it before planting, put it on the north side of a building away from direct sunlight and heat. Keep the root ball moist to prevent the roots from drying out. Put a bare–root tree in loose soil or sawdust mulch and keep it moist. If you can't plant the tree within 1 to 3 days, make arrangements to leave it at the nursery until you have time to plant it.

# Steps for planting container and balled-and-burlapped trees

Many problems with a tree can be traced back to improper planting. It's important to dig a hole that is 2 to 3 times the width of your root ball but only deep enough for the root ball to sit 1 to 2 inches above the ground. A large hole will allow better root growth and is especially important in compacted soils. Roughen the sides of the hole, which should be the same width at the top and bottom, and remove any rocks or debris. Here is a step-by-step guide for planting both container trees and balled-and-burlapped trees.

Step 1: Determine how big a hole you need.



Measure the height and width of your tree's root ball.



Step 4: Make sure the soil at the bottom of the hole is tamped down and firm.



The tree should sit on firm, unexcavated soil so it doesn't sink over time from settling or watering. (If planting a balled or burlapped tree, go to Step 11)

Step 2: Dig a hole 2 feet wider than the size of the root system.



A large hole will allow better root growth and is especially important in compacted soils. Roughen the sides of the hole, which should be the same width at the top and bottom, and remove any rocks or debris.



Step 5: Remove the tree from its container.



Wriggle off or cut away the container.

Step 3: Get the planting depth right.



The depth of the hole needs to be 1-2 inches shallower than the root ball. Trees often are planted too deep in the hole. Make sure you check your hole depth from time to time to ensure that you don't dig too deeply. Lay something flat across the hole and measure the depth. Plant it with the root collar at ground level or slightly higher (2 inches) to allow for settling.

Step 6: Straighten roots or cut away exterior of root ball.



After removing the container, gently straighten the roots to avoid girdling root problems. Some arborists cut away about 1 inch of the outer periphery of the root system to physically remove the circling roots. Girdling roots affect the tree's health by cutting off water and nutrient transport.

Photos: Colorado State University

#### **Fertilizer and amendments**



Amendments are additions to the soil that enhance its moisture–holding capacity, nutrient availability, or structure.

Amendments include good loamy topsoil, peat moss, and various kinds of mulches. Most soils in Oregon—except sandy soil, soil with a high clay content, or soil that has been heavily disturbed by construction—don't require amendments.

Sandy soil, often found in eastern Oregon or along the Oregon coast, benefits from the addition of organic matter such as peat moss to the planting hole to increase the soil's moisture–holding capacity around the roots.

Additions of organic matter also help clay soil. This soil is easily compacted, which obstructs the movement of water and air. Mixing in organic matter helps break up clay particles and improves water and air flow around the roots.

#### Step 7: Place the tree in the hole.



Photo: Colorado State University

Step away for a moment to make sure the tree is straight. When satisfied that it's sitting in the hole properly, pack a ring of shallow soil around the base of the root ball. This ring of packed earth should prevent the tree from rocking after planting and may eliminate the need for staking.

#### Step 10: Water the root ball.



Photo: Colorado State University

Since the root ball location is obvious, concentrate first-year water efforts on the root ball, expanding your irrigation efforts outward as the tree canopy expands in future years.

#### Step 8: Backfill the hole.



Photo: Arbor Day Foundation

Fill in the hole around the rootball with the same soil you originally removed when digging the hole.

#### Step 11 (balled and burlapped tree): Remove twine around trunk.



Photo: Colorado State University

Pull or cut the burlap away from the trunk and the top of the ball as far down as possible. Sometimes the root ball is wrapped with nondegradable fabric; be sure to cut away this fabric. If the root ball also is supported by a wire basket, bend or extend portions of the wire basket down below the soil surface level. Cut the wire away once the tree is in place at the proper depth.

#### Step 9: Add organic mulch.



Photo: Colorado State University

Mulch will discourage weeds, stabilize soil moisture, and add organic material to the soil as it breaks down. Keep mulch off the top of the root ball.

#### Step 12: Use care when handling the root ball.



place the tree in the hole to test for proper depth. Never drop the tree on the ground or in the hole as this disturbs the root ball and can break the roots. The root flare and top of the soil ball indicate the original planting depth. Take care not to loosen or break the soil ball.

When placing the tree in the

hole, always support the root

ball with your hands and gently

Photo: South Dakota State University

#### **Fertilizer and amendments**

Construction equipment compacts soil and removes valuable topsoil. Additions of topsoil, peat moss, and other organic matter can improve a tree's growth and survivability on construction sites. Compost may be too hot.

How much soil amendment should you add to the backfill? Generally a ratio of one-third amendment mixed with two-thirds of existing soil is sufficient. Use caution with composted materials, which may be very hot from biological activity or high in salts (manure is one example).

Contrary to popular belief, you don't need to fertilize trees when you plant them. However, if you want, you can use a well-balanced (for example, a 10–10–10 formulation), slow-release fertilizer in the planting hole. Slow-release fertilizers have a long-lasting effect and are less likely to burn the roots. Other fertilizers can accentuate transplant shock. Never use lawn fertilizers in a planting hole.



Clay soils

Photo: Oregon State University

#### Step 13: Keep the roots moist before planting.



After digging the hole, mound some soil in the center. Set the root mass on top of this mound so the roots cascade downward in each direction. Again, where the root flare meets the trunk is where you will find the appropriate planting level.

#### Step 14: Backfilling and mulching



Photo: University of Nebraska

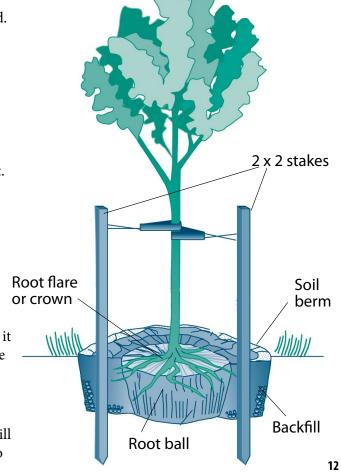
If you plan on staking your tree, drive two wooden or metal posts along the sides of the hole before you backfill. This prevents you from accidentally driving the stakes through the root ball. Fill the hole with soil about half full, lightly tamping it with your foot to remove any air pockets. Make sure the tree is standing upright and not leaning. Water slowly to saturate the soil and remove any remaining air pockets, then finish filling the hole with soil. Remove any extra soil rather than mounding it around the tree. Build a temporary berm at the drip line to hold water around the root system.

#### When should you stake your tree?

Many new trees, when planted correctly, don't need to be staked. But sometimes a weak tree or a tree planted in a windy site will need to be staked for the first 6 months or year of its life. Here's what you need to know about staking.

Young trees standing alone with their tops free to move will develop stronger, more resilient trunks than tightly staked trees. However, too much wind can bend young trees and disturb the root ball, damaging roots and stressing the new tree. Staking helps tree that are top-heavy and would lean without additional support. Staking also helps protect trees from vandalism and mechanical damage. In areas of Oregon exposed to high winds, such as the coastline, trees may need additional protection. Use temporary wind barriers made of plastic or cloth, but remove them within 1 year once the tree has developed a stronger root system. To properly stake a tree, you need two wooden or metal posts. Drive them into the sides of the excavated planting hole before you backfill to prevent driving them through the root ball. Secure the tree to the stakes with broad straps or hose; don't use wire because it will girdle the bark of the tree. Guy and stake the tree so it is secure from blowing over, but allow the trunk to move up to 2 inches in any direction.

If staking doesn't allow some movement of the tree's trunk, the tree will not allocate any growth (wood) to the main stem and it will be unstable when you remove the stakes and guying. Remember to remove the stake and guying materials within a year.



## Early Tree Care How to keep your new tree alive

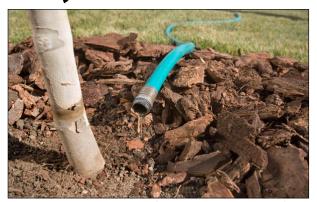


Photo: Sacramento Tree Foundation

Mulching around the base of your tree helps it retain the moisture you give it. Avoid short, frequent watering, which promotes development of a shallow root system vulnerable to drying out and other stresses.



Photo: Hanover Township, Northhampton County, Pennsylvania



Do not let your lawn grow right up to the base of your tree. The grass will rob the tree of valuable nutrients and water.

Newly planted trees require routine and thorough watering, particularly during Oregon's dry summer months. Water the tree regularly for at least 3 years after planting. Soil and weather conditions, as well as the amount of competing grass around the tree, dictate how much water to give and how often. In general, trees need the equivalent of 1 inch of rainfall per week from June through September.

#### **Watering in winter**

Remember that trees use water even during winter. Just before the ground freezes in late fall, give your tree a thorough watering. During mild winters, where temperatures are above normal and the ground thaws, give your tree periodic watering. This is particularly important for conifers, which retain their needles and use water readily during winter.

#### How to water

Before you water, examine the soil moisture 4 to 8 inches deep. If the soil feels dry or just slightly damp, it needs water. Well–drained, sandy soils will need more water more often than a loam or clay soil. The best way to water a newly planted tree is to place a garden hose at the base of the tree. Run a slow trickle of water for several hours or until the soil is thoroughly soaked. To help hold or direct the water around the root system, build a temporary soil berm or saucer.

#### **Irrigated landscapes**

In eastern Oregon, plant ornamental and shade trees in an irrigated landscape or hand water them regularly to ensure their survival. In drier regions of eastern Oregon, trees often need water during winter to prevent desiccation.

#### Mulching

Using a mulch around the base of the tree is an important part of long-term tree care. A mulch keeps the soil moist, limits weed growth, and discourages injury to the tree from lawnmowers and weed-eaters. Wood and bark chips are good mulching materials. You can use a porous landscape fabric as a weed barrier underneath the chips, but don't use plastic because it suffocates the roots. Apply a 3– to 6–inch layer of mulch and spread it to form a circle at least 3 feet away from the trunk. Keep the mulch from direct contact with the tree trunk. Some bark mulches may contain pathogens or contaminants that can harm your new tree. Maintain the mulch ring to keep grasses from competing with the tree.



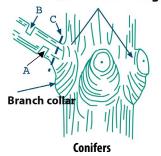






# Branch Bark Ridge Branch collar Hardwoods

#### **Branch Bark Ridge**



#### How and when to prune your tree

Pruning is one of the most important and least understood aspects of tree care. Pruning will affect your tree's longevity, health, and resistance to storm damage. The best time of year to prune varies depending on whether your tree is a conifer or a deciduous tree.

Prune conifers in late summer and fall. This reduces the amount of pitch the tree exudes and lessens the chance of attack by the Sequoia pitch moth, an insect common throughout Oregon. Female Sequoia pitch moths emerge in the spring and are attracted to fresh wounds. Delaying pruning until late summer or fall, after the moths have flown, helps prevent this problem.

Prune deciduous trees in late winter or early spring before the leaves begin to appear. This allows the new growth to begin covering the wound and lets the tree internally seal the wound during the growing season.

#### Myth #1: Prune the crown to compensate for roots lost transplanting



Photo: Oregon State University

Fact: Trees should not be pruned at the time of planting except to remove broken or dead branches. The crown of a young tree should not be cut back to compensate for root loss. If a tree has a double leader, you can remove the weaker or inferior stem. However, little pruning is done the first 3 years after planting.

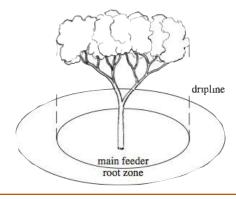
#### Fertilizing your new tree



Photo: University of Massachusetts

A worker injects fertilizer into the root zone of a young tree.

Fertilize established trees (1 year after planting) every 2 or 3 years in the fall after the leaves have dropped or in early spring before growth begins. Apply the fertilizer directly to the soil surface and water it in. If there is thick grass sod beneath the tree, use a pipe to punch holes 12 inches deep in the sod beneath the drip line of the tree and apply the fertilizer in the holes. This helps the fertilizer reach the tree's root system. Avoid using "weed and feed" fertilizers around the root zone of your tree. Don't apply nitrogen in late summer, because it can stimulate new growth that may not "harden off" or go into fall dormancy properly and will be more easily damaged by early fall frosts.



#### Myth #2: Paint pruning cuts to help the tree heal.



Fact: Don't use tree paint on the cut surfaces or on other wounds. Tree paint does not seal the wound properly and can trap moisture behind the paint, encouraging stem decay and attracting insects.

#### Myth #4: Top trees so that they don't get too big.



Photo: Oregon State University

Fact: Topped trees are more likely to break apart in storms or cause property damage than trees that have retained their natural shape.

Topping weakens the structural integrity of the tree and causes it to drop limbs.

#### Myth #3: Tree topping is the proper way to prune a tree.



Photo: Washington State University

Fact: Tree topping is the removal of large branches at the top of the tree. Topping is both ugly and dangerous. Topping is the most expensive form of pruning because it creates large wounds that allow rot and fungal decay to enter the tree, damaging the tree's appearance and reducing its value and life expectancy. Never top a tree!

#### Myth #5: A tree will grow just fine without any pruning

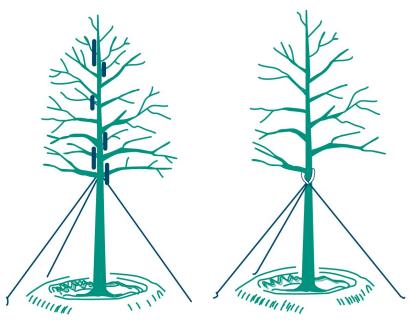


Photo: Iowa State University

Fact: This may be true for trees in the woods, but not for trees in our neighborhoods. As your tree grows, it will need periodic pruning. Some trees benefit from pruning a little every year to keep their shape and remove fast-growing water sprouts. Other trees grow more slowly and benefit from infrequent pruning.

#### More tips for pruning your tree

Periodic, selective branch pruning will keep your tree healthy and in good shape. The rule is never to remove more than one–third of the tree's crown in any given pruning.



Photos: Oregon State University



Proper pruning requires three cuts. Failing to make those cuts could lead to tree damage.



Proper pruning cuts on a hardwood tree. The cut is above the branch collar.



Proper pruning cuts on a conifer. The cut is above the branch collar.

#### **Wrapping your tree**

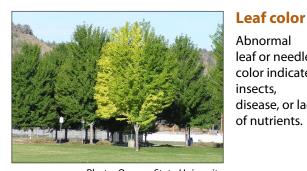


Wrapping the tree's trunk is unnecessary for most trees. If your tree comes already wrapped, remove the wrapping and inspect the trunk for signs of damage or wounds. If the tree has a wound, remove the wrapping completely and allow the wound to dry out and stay dry to prevent further decay and rot.

However, some nurseries require wrap as part of their guarantee. If so, after inspecting your tree, wrap from the ground upward, making sure that the wrappings overlap like roof shingles to repel rainwater.

Water that gets beneath the wrapping increases the chance of insects and disease because it creates a moist environment underneath the wrapping. Wrapping is temporary and should eventually be removed, usually after the first year.

## Monitoring Your Tree's Health Periodically inspect your tree for signs of insects, disease, or other problems



Abnormal leaf or needle color indicates insects, disease, or lack



Photo: Oregon State University

#### Leaf size Abnormally small leaves or leaves that have brown

margins may

be caused by lack of water.



If you aren't sure what's causing

the problem, take a sample of the

affected area to your local nursery

or tree care professional or OSU

Extension Service agent to see if

prescribe a treatment.

they can diagnose the problem and

Photo: Ponderosa pine oozing sap: Alan Levine/ CC BY-NC-SA 2.0

#### **Oozing**

Excessive pitching or oozing of fluid could be caused by an old wound, disease, or insects.



#### **Dying branches**

Branches that die suddenly indicate the presence of insects or a stem disease.

Photo: Pruning Dead Branches: Eileen Kane/CC BY-NC-SA



means insects are feeding on them.

Leaves that look like they have been eaten usually

Pests

## **Consulting Extension Experts**

The <u>Oregon State University Extension Service</u> has offices in every Oregon county. Some counties have a horticulture or forestry agent. In many counties, the OSU Extension Service coordinates the Master Gardener program, a training program for people interested in learning more about plants and trees. Master Gardeners are available by phone to answer your plant care questions. Look in your local telephone directory under "OSU Extension Service" or in the county and state services section.

See whether your community has a program to plant and care for trees. Many Oregon cities have earned the status "Tree City USA" for having comprehensive community forestry programs. Contact your local parks or public works agency and find out how you can get involved in planting and caring for trees in your community. If your city isn't a "Tree City USA" community, consider joining the effort.

#### Selecting an arborist

When the job is too big to handle yourself, call a professional. Some tips to consider:

- Hire someone who is bonded, licensed, and insured. Tree service companies must register with the state of Oregon, so ask for a contractor registration number.
- Ask for references and get more than one bid. Take your time and select a company you know is reputable.



Arborist: Penn State/CC BY-NC-SA 2.0

- Ask for a certified arborist. Certified arborists are people with tree care experience who have passed the International Society of Arboriculture's (ISA) Certification Exam.
- Beware of door–knockers. Most companies have business cards, uniforms, truck signs, etc. Most reputable companies advertise and don't solicit business door–to–door.
- A good arborist rarely recommends topping and should try to talk you out of it if you request to have a tree topped. Avoid tree toppers at all costs!
- Never allow a climber to use spikes or spurs to climb your tree unless the tree is to be removed.

#### For more information

#### **Organizations**

#### **Arbor Day Foundation**

https://www.arborday.org/

The Foundation publishes materials on tree planting and care.

#### **Trees Are Good**

www.treesaregood.com

#### International Society of Arboriculture'

This consumer education website features information on all aspects of tree care. <u>www.pnwisa.org</u>

#### **Oregon Community Trees**

http://oregoncommunitytrees.org/

This organization promotes proper tree planting and care.

#### **Recommended Reading**

Your local library or bookstore has many good books on tree planting and care. A couple we recommend are:

Sunset Western Garden Book Sunset Publishing Corp., 2012

The Complete Guide to Landscape Design, Renovation, and Maintenance Betterway Publications, Inc. 1991.

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