

# Tree Book

*A tree selection guide  
for planting near power lines*



**Planting Tips**

**Tree Care**

**Additional Resources**

## A UNIQUE OPPORTUNITY!

If you visit the Evergreen Arboretum & Garden in Everett, you will find a special demonstration area with plants that are suitable for small urban gardens beneath or near power lines. You will find signage and labeling that will provide you with guidelines for sound tree selection, placement, clarity, and good maintenance practices. The Arboretum is open from dawn to dusk every day and has wheelchair-access throughout most of the area. There are no admission or parking fees.

Evergreen Arboretum & Garden – [www.evergreenarboretum.com](http://www.evergreenarboretum.com)  
145 Alverson Boulevard, Everett WA 98201

### Directions on northbound I-5:

- Take Exit 195 (Marine View Drive).
- Go left at the bottom of the off-ramp onto E. Marine View Drive.
- Follow this road until it goes under the overpass of Highway 529. The road becomes Highway 529S (also called W. Marine View Drive on some maps).
- Go past the Legion Park golf course entrance and take the next left onto Alverson Boulevard.
- Take the next left into Legion Park and turn right at the parking lot.
- Entrance to the arboretum is at the far end of the parking lot.


### Directions on southbound I-5:

- Take Exit 198 onto southbound Highway 529.
- Follow Highway 529 across the Snohomish River Delta bridge.
- Take a right at the first exit after the bridge to Highway 529S.
- At the bottom of the ramp at the light, turn left onto Highway 529S (also called W. Marine View Drive on some maps).
- Go past the Legion Park golf course entrance and take the next left onto Alverson Boulevard.
- Take the next left into Legion Park and turn right at the parking lot.
- Entrance to the arboretum is at the far end of the parking lot.



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**W**ASHINGTON: THE EVERGREEN STATE — where trees in both rural and urban settings are a vital element of the quality of life. Reliable electric service is also a vital part of our quality of life. When tree limbs come in contact with power lines, electric service can be impaired.

**A large number of the power outages affecting Snohomish County PUD customers in recent years were caused by trees.**

Fallen trees and tree limbs that become entangled in lines, wind-blown branches that cross the lines as they fall to the ground, and tree limbs that grow into power lines are the major causes of outages. Not only are such service interruptions inconvenient for customers, but they can also threaten public safety when power is interrupted to vital services such as hospitals, traffic signals, and fire alarm systems, or to customers with life-support systems.

As part of the PUD's obligation to provide reliable electrical service to all of its customers, the utility has developed a vegetation management program designed to keep tree limbs and shrubs safely away from power lines. Tree removal and selective removal of tree growth, as well as discriminating use of growth regulators and herbicides are among the methods employed.

To ensure reliable electric service for the future, special care must be taken in the selection and placement of new trees. Wise tree-planting will also protect street and sidewalk visibility and clearance, and prevent damage to pavement, sewers, and buildings.

This book was prepared to provide our customers with guidelines for sound tree selection, placement, and management, so that trees planted today leave a legacy of beauty and safety tomorrow.

**PUD Vegetation Management: 425-783-5579**

Monday through Friday, 8 AM to 4:30 PM

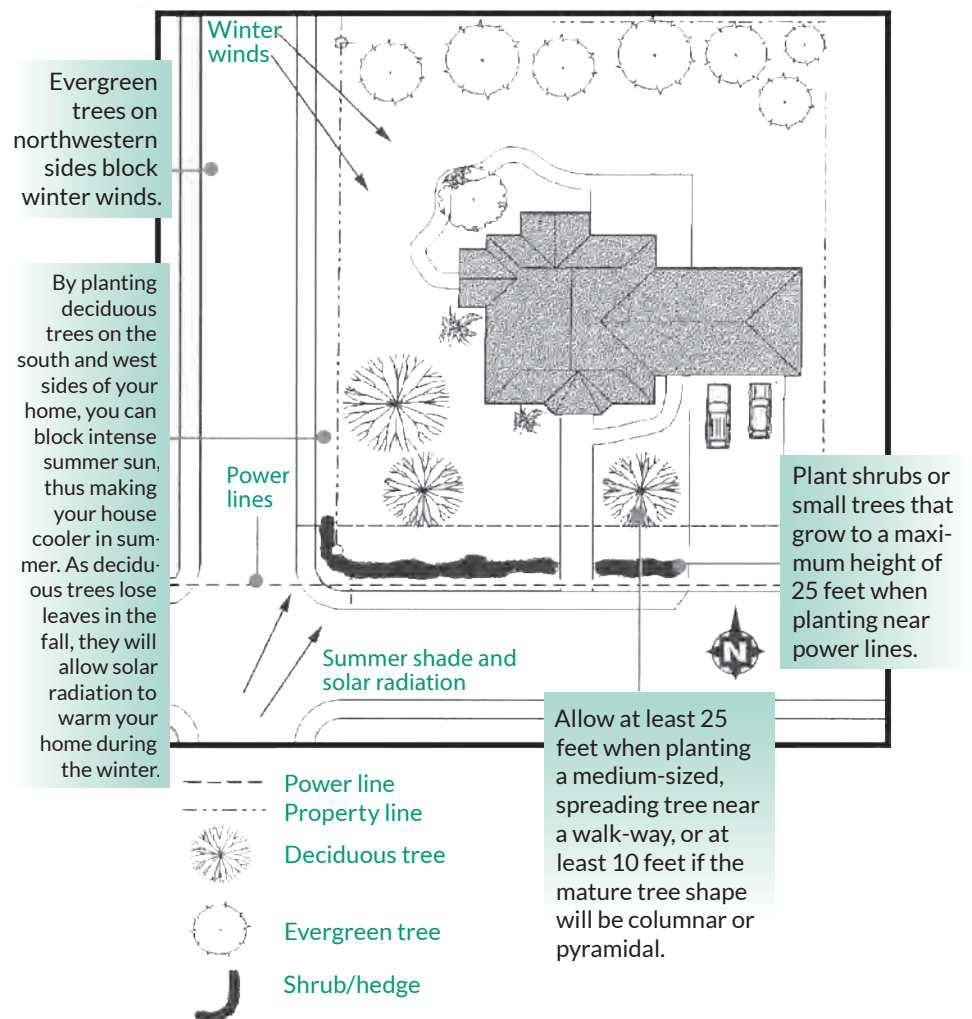


## PLAN BEFORE YOU PLANT

Choosing the right tree and the best place to plant will help provide beautiful, healthy trees that need little maintenance. To ensure reliable electric service for the future, special care must be taken in the selection and placement of newly planted trees near power lines. Wise tree planting also protects street and sidewalk visibility and clearance, and prevents damage to pavement, sewers and buildings. Careful tree selection should accommodate how you plan to use the site as well as safety needs. In addition, properly located trees can increase property values. The care taken to plant the right tree in the right place is an investment in the future.

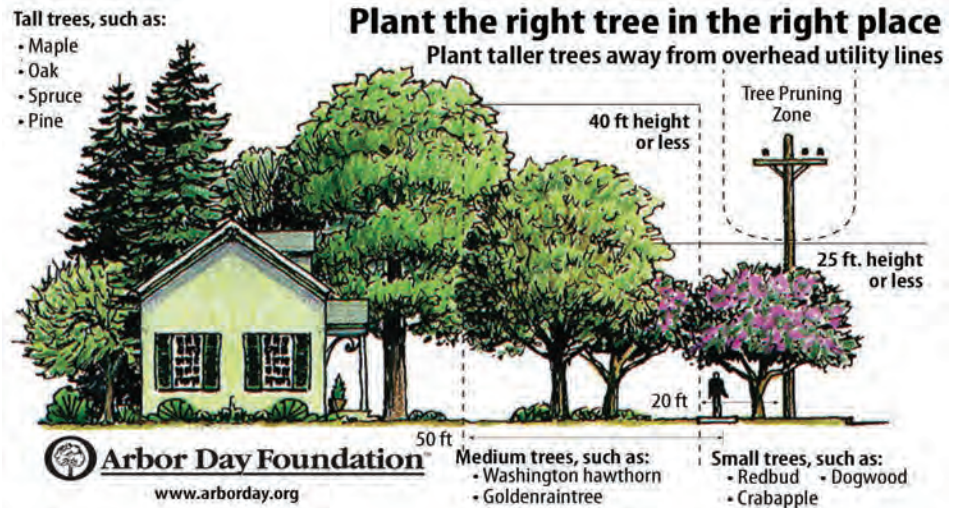
## TOOLS TO HELP PLAN YOUR LANDSCAPING

Using a standard piece of graph paper, map out your yard, house, driveway, street, power lines and other existing immovable elements. Then, consider where trees and shrubs can be added to complement your site. Here are some things to consider when making your decisions:



Before planting trees and shrubs, consider what you want your yard to look like in 10 or 20 years. Then, take an inventory of the factors that impact your site. Here are some things to consider:

**Electrical problems:** tree branches contacting power lines are a major cause of power outages. Limbs and trees blown down during storms can bring down electrical wires, causing a dangerous situation. In addition, trees in contact with power lines can conduct electricity, creating the potential for electrocution or shock to children at play or homeowners doing yard work.



**Underground:** tree roots of large, invasive species such as poplars and willows can cause serious damage to sewer pipes and other underground utilities. In addition, trees and shrubs planted directly over underground utilities may be damaged, or may need to be removed if those utility lines must be dug up for repairs.

**Broken pavement:** large growing tree species that have been planted too close to sidewalks or driveways can cause pavement heaving as they mature. This is not only expensive to repair, but can also create serious hazards for pedestrians.

**Damage to homes and buildings:** the branches of trees planted too close to buildings can damage the roof or siding. The roots of large trees planted too close to buildings may damage basement walls or foundations.

**Dangerous screening:** tree limbs can obscure street lights, traffic signs and signals, and dangerously restrict views of oncoming traffic.

**Unwanted shading and screening:** large growing trees can obstruct scenic views, block needed sunlight for flower or vegetable gardens, or impair solar access for the homeowner or neighbors.

**Street trees:** large trees growing in the limited space along city streets cost cities and utilities millions of dollars each year in needed repairs to streets, walks, and sewers, and in pruning for road and overhead clearance.

**Communication lines:** such as cable TV, telephone, Internet, etc., can hang much lower on the power poles, so try to avoid planting any trees directly under utility lines. Branch contact on communication lines can wear on the insulated coating, causing disrupted quality in service and crews may need access for maintenance or attach new lines.

# HOW TO PLANT TREES AND SHRUBS

**STEP 1** Remember to locate all underground utilities before you begin. Washington state law requires that you notify local utilities at least three business days in advance of digging. Contact the Utilities Underground Location Center (1-800-424-5555) to have all local utilities contacted for you free of charge.

**STEP 2** Dig the planting hole two to three times the width and the same depth as the ball or container. Leave the bottom of the hole solid. Loosen the soil on the sides of the hole with a shovel or spade fork.

**STEP 3** For balled or burlapped trees, set the root ball in the hole and remove as much burlap as possible. Be sure to remove all twine or wires from around the base of the tree and the top of the root ball.

For container trees, remove the tree from the container and straighten any coiled roots. With a shovel or a knife, cut any circling roots on the side of the root ball. Loosen the root ball to stimulate root growth into the surrounding soil. Lower the tree into the planting hole by supporting the root ball.

For bare-root trees, prune out damaged or tightly circling roots. Plant only during dormant season. Keep roots covered and moist before planting. Place the tree in the planting hole, spread the roots and cover with soil except in high clay or sandy conditions. Make sure that no roots are curled up or tucked under.

**STEP 4** Fill the planting hole and cover the root ball with the same soil dug from the hole. Avoid using soil amendments like peat moss or composted organic material in the planting hole (except in soils with very high clay or sand content). If you are unsure, please check with your local nursery.

**STEP 5** Water well, slowly soaking the soil to the full depth of the root ball. Because water does not move easily between different soil textures, be sure to also apply water directly to the root ball as well as the surrounding soil. Repeat watering in three days.









**STEP 6** Mulch the area extending approximately two feet from the trunk. A mulch layer two to four inches thick will help keep down weeds and protect the trunk from lawn mower damage. To avoid crown rot, be sure to keep the mulch away from direct contact with the lower trunk.

**STEP 7** Stakes can be used if the tree needs support, however, it is best to stake only when necessary as it may result in a weaker root system. Use strips of fabric or burlap, not wires or ties to secure the stake to the tree. Remove stakes after the first year of growth.



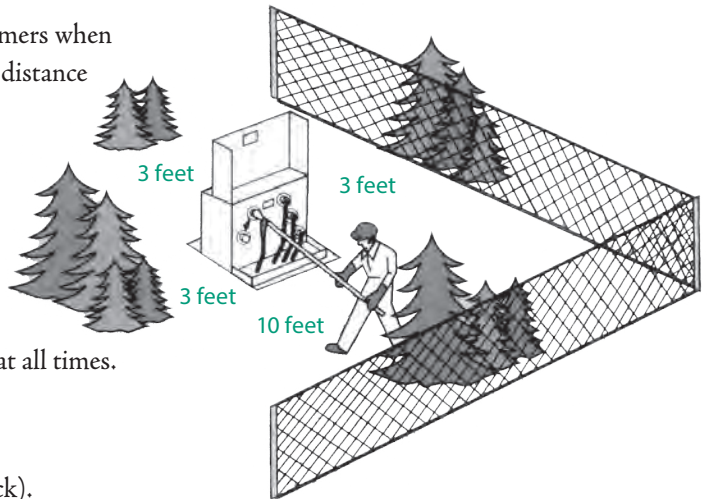
Know What's Below  
**Call before you dig.**  
[www.callbeforeyoudig.com](http://www.callbeforeyoudig.com)

## UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITY LINES

	PROPOSED EXCAVATION
	TEMPORARY SURVEY MARKINGS
	ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES
	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
	POTABLE WATER
	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
	SEWER AND DRAIN LINES

## SAFE PLANTING NEAR PAD-MOUNTED TRANSFORMERS

Be sure to allow the correct distance from the pad-mounted transformers when planting trees or other vegetation. This diagram shows the minimum distance required when planting near a pad-mounted transformer.



### Tips for Safe Planting Around Underground Transformers:

- ▶ Keep in mind that the transformer must be accessible for service at all times.
- ▶ Select plants that are easily maintained and suitable for the site.
- ▶ Allow plants sufficient growing room.
- ▶ Do not plant in front of the transformer (the side with the padlock).
- ▶ Do not use ground covers as they won't stand up to the trampling.
- ▶ Do not allow planting to overgrow the transformer.
- ▶ Avoid disposing of liquids through grates on below-ground transformers.
- ▶ Do not change grade levels around pad-mounted transformers.

## TREE SELECTION

Many of us have a favorite tree. Unfortunately, no one tree is perfect for all locations. Most of our native trees, as well as most commonly used shade trees, can grow to tremendous heights. Because of their great size, they do not fit well in the small spaces of many urban planting locations. These large trees are more likely to conflict with overhead power lines, sidewalks, buildings, and streets.

Trees are often planted with little thought as to how large they become once mature. It can be difficult to imagine that the five-or six-foot tree purchased at the nursery will fill a space 80 feet tall and half again as wide. But large-growing tree species will do just that, and well within our lifetime.

Sometimes trees are planted with the assumption that they can be pruned to keep them small. This can be very difficult with fast-growing plants, not to mention costly and time consuming. Think about the future: if no one prunes it, will it become a menace? Selecting the right size trees can reduce and even eliminate the need for future pruning.

The Pacific Northwest climate supports a great diversity of plants. We can only begin to list all of the trees that can be grown in this area. Many more species are available. The following plant list has been prepared to help you select the proper size and species of trees and large shrubs for planting near utility lines or in restricted spaces. In addition to a mature size less than 25 feet tall, these plants were selected for low maintenance, insect and disease resistance, availability, and beauty. The mature sizes listed represent the averages expected for our region. The actual growth of an individual plant will depend on the soil, light exposure, moisture, and temperatures of the site.



More information on planting and growing trees and shrubs can be obtained from the references listed at the end of this booklet.

**Deciduous Trees** – These trees can be used where there are over-head lines or other space restrictions. Small trees in the front yard will complement a home without dwarfing it as larger trees can do. When the only planting space available is directly beneath utility lines, trees that mature at 25 feet or less should be used.

**Fruit Trees** – Dwarf varieties should be chosen for apples, pears, and cherries. Non dwarf varieties typically are incompatible with power lines as their mature height exceeds 30 feet. The type of root stock these trees are grafted on will affect their size. Consult your local Cooperative Extension or nursery for more information on dwarf trees and recommended varieties.

**Conifer** – These trees are cone-bearing evergreen trees that can be used where there are overhead lines. The trees in this section will not exceed 25 feet in height at maturity.

**Shrubs** – These shrubs can be used for screen planting near or beneath utility lines. When enough space is allowed for them to reach their natural width, these shrubs can provide long-term screening without side or top pruning.

**Hedges** – Formal hedges can also be used near or beneath utility lines and provide an excellent screen. Hedges must be pruned annually to maintain their health and vibrancy.

**Native Plants** – These native plants were selected because they grow very well in this region. Native plants are adapted to local climate. Once established, they are more drought tolerant than plants from regions of dissimilar climates.





# Deciduous

*Acer circinatum*

## Vine Maple

**Mature Size:** Approximately 15 feet tall by 20 feet wide

**Shape:** Broadleaf deciduous tree or large shrub. Multi-stemmed, shrubby, spreading, sprawling and vine-like in forest shade, but bushy and dense in sun.

**Foliage:** Almost circular leaves heart-shaped at base that develop red, orange and yellow fall colors in sun. Flowers have deep red sepals and greenish white petals. Fruit is deep red at maturity.

**Description:** Considered to be the most useful native tree for the landscape in the Pacific Northwest. Prefers moist, shady situations, but tolerates sun.

**Wildlife Value:** Attracts birds



*Acer ginnala*

## Amur Maple

**Mature size:** Approximately 20 feet tall by 20 feet wide.

**Shape:** Dense, upright crown and usually grows in multi-stem form.

**Foliage:** Dark, glossy trifoliate deciduous leaves and samaras (seeds) in the summer. Leaves turn scarlet red in the fall.

**Description:** This hardy deciduous tree grows well in the older regions of the Northwest. It is easy to transplant and tolerates heat, cold and drought. Plant in full sun to light shade. It is often used as a street tree, in small gardens, on patios, in landscape containers and on screens when branched to the ground. You may also wish to consider a close relative of Amur Maple, the Rocky Mountain Maple (*Acer glabrum*).

**Pests and disease:** Fairly insect-resistant.



*Acer palmatum*

## Japanese Maple

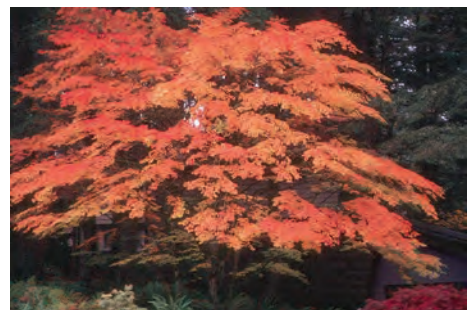
**Mature size:** Approximately 25 feet tall by 25 feet wide. It seems to grow wider than it is tall.

**Shape:** Horizontal branching.

**Foliage:** Fine-textured deciduous leaves. Different leaf shapes and colors are available. Green leaves turn orange or deep red in the fall.

**Description:** This popular garden tree is often used as a lawn specimen or shrub border. It grows best in filtered shade in rich, well-drained soils. While moderately drought tolerant, it is not well-suited to dry, gravelly soils. It should be protected from prevailing winds.

**Pests and disease:** Maples in general may be susceptible to anthracnose, cankers, leaf spot, leaf scorch, scale insects, caterpillars, aphid, borers, or verticillium.





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*Acer platanoides Globosum* **Globe Norway Maple**

**Mature Size:** Approximately 15 feet tall by 18 feet wide

**Shape:** Broadleaf deciduous tree. Dense foliage, broad crown & stout stems.

**Foliage:** Simple, glossy, five-lobed leaves which are 4-7 inches across.

**Description:** Sun. Easy to transplant. Adapted to extremes in soils. Tolerates pollution. Shallow root system may compete with turf and lift sidewalks.



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*Acer tataricum* **Tatarian Maple**

**Mature Size:** Approximately 15-20 feet tall by similar width

**Shape:** Broadleaf deciduous shrub/tree. Often multi-stemmed, rounded to wide-spreading.

**Foliage:** Simple, usually un-lobed leaves which are 2-4 inches long and medium green in color, changing in fall to yellow, red to reddish-brown. Flowers are greenish white.

**Description:** Sun to part shade. Adaptable. Tolerant of drought. Performs best in well-drained soil.



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*Amelanchier x grandiflora* **Autumn Brilliance® Serviceberry**

**Mature size:** Approximately 20 feet tall by 15 feet wide.

**Shape:** Upright spreading to gracefully spreading.

**Foliage:** Small to medium deciduous green leaves. Bright red to orange-red in fall.

**Flower:** White flowers grow in clusters in April or May.

**Fruit:** Some may bear small, edible, purplish-blue fruit.

**Description:** Good form and strong branching make this an attractive tree. It displays reliable spring bloom and spectacular fall color.

**Pests and disease:** May develop leaf miners. Fire blight and leaf blight also may cause problems.



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*Cercidiphyllum japonicum "Pendulum"* **Weeping Katsura Tree**

**Mature Size:** Approximately 20 feet tall with a spread of 25 to 30 feet.

**Shape:** Weeping habit and rounded form.

**Foliage:** Deciduous blue-green leaves turn bright yellow in fall.

**Description:** Sun. Grows best in most, well-drained soil.

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*Cornus florida*

### Flowering Dogwood

**Mature Size:** Approximately 20-25 feet tall and often wider than it is tall when mature.

**Shape:** Broadleaf deciduous shrub/tree. Low branching, spreading horizontal. Bark is gray-brown to blackish and broken into small squarish blocks resembling an alligator's back.

**Foliage:** Simple leaves which are 3-6 inches long and green in color, changing in fall to yellow and orange. Flowers are small, white tinged with pink, in pendant clusters 2-4 inches long. Blooms in mid- to late-spring. Small blue-black fruit.

**Description:** Sun or part shade.



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*Cornus sericea*

### Redosier Dogwood

**Mature Size:** Approximately 7-9 feet tall and 10 feet wide when mature.

**Shape:** Broadleaf deciduous shrub. Multi-stemmed, young branches red, spreads by underground stems.

**Foliage:** Simple leaves which are 2-5 inches long which are dark green above and blue-green below. Flowers are small, dull white in clusters 1-2 inches across. Fruit is green, then white.

**Description:** Sun. Moist soil.



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*Cotinus coggyrgia*

### Smoketree

**Mature size:** Approximately 10 feet tall by 15 feet wide.

**Shape:** Upright with rounded habit. Loose, spreading habit – often grows wider than it is tall.

**Foliage:** Rounded blue-green leaves turn yellow, red or purple in the fall.

**Flower:** Showy flower panicles (clusters) give the plant its “smoky” appearance from June through September.

**Description:** A rugged plant for use in dry, rocky soils, this tree is good for use in shrub borders and is tolerant of many soil types and pH ranges. Plant in full sun in well-drained loam soil.

**Pests and disease:** No serious pests. Some may be afflicted with verticillium wilt, leaf spot or scabs.





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*Crataegus laevigata* *Crimson Cloud*<sup>TM</sup> **Crimson Cloud Hawthorn**

**Mature size:** Approximately 5 to 20 feet tall and to a similar width.

**Shape:** Rounded top, dense, thornless branches.

**Foliage:** Leaves alternate, glossy green, rounded.

**Flower:** Large, single, bright red with a white star center.

**Fruit:** Glossy red, oblong, single-seeded.

**Description:** This is an outstanding tree for urban planting. It has been cultivated for ages in hedges and gardens.

**Pests and disease:** Fairly less susceptible to insects and disease.



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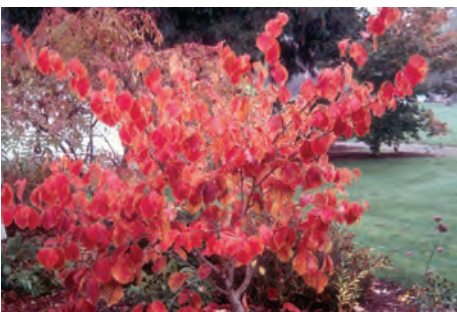
*Fraxinus pennsylvanica* *Leprechaun*<sup>TM</sup> **Leprechaun Ash**

**Mature Size:** Approximately 20 feet tall and 15 feet wide when mature.

**Shape:** Deciduous tree/shrub. True genetic dwarf, often sold grafted to a standard trunk at a height of 6 feet from which it develops into a dense, compact, rounded tree.

**Foliage:** Small leaves. No fruit.

**Description:** Sun.



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*Hamamelis x intermedia* **Witchhazel**

**Mature size:** Approximately 15 to 20 feet tall by 15 to 20 feet wide.

**Shape:** Simple alternate leaves that are short-stalked and heart-shaped at the base. Some turn golden yellow in the fall and other will turn brownish-red.

**Flower:** Profuse, large, fragrant flowers with golden-yellow petals bloom in late fall and winter.

**Description:** This tree is known for producing an astringent used in the treatment of superficial wounds and cosmetics. It is a popular shrub in gardens and parks due to its fall-winter blooming season.

**Pests and disease:** May be susceptible to leaf gall, aphids or gypsy moths.

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*Laburnum x watereri*      **Goldenchain Tree**

**Mature size:** Approximately 30 feet tall by 20 feet wide.

**Shape:** Upright branches.

**Shape:** Leaves become yellow in alkaline soils. Grows best in slightly acid soil.

**Flower:** Striking display of yellow, pea-like flowers in long pendulous clusters in late May.

**Fruit:** All parts of this plant are poisonous.

**Description:** These grow best in sun to partial shade and are used as lawn specimens or shrub borders. Plant in well-drained soil with adequate moisture.

**Pests and disease:** Leaf spot, twig blight and aphids may be a problem.



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*Magnolia stellata*      **Star Magnolia**

**Mature size:** Slow growing. Mature trees are up to 20 feet tall by 10 feet wide.

**Shape:** Dense, oval or rounded.

**Foliage:** Dark-green leaves are two and one-half to four inches long. Bronze to yellow fall color.

**Flower:** Large, white or pink fragrant flowers bloom in mid-April before leaves develop.

**Description:** An attractive small tree or shrub with fragrant flowers. Avoid planting it in south-facing exposures that can cause early flowering, making flowers susceptible to early rains and late freezes.

**Pests and disease:** While this tree is relatively free of insects and disease, it may be susceptible to scale insects, leaf scorch, or iron deficiency. It is not tolerant of root competition or dry soil.



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*Malus transitoria*      **Transitoria Crabapple**

**Mature size:** Approximately 25 feet tall by 12 to 20 feet wide.

**Shape:** Open to dense spreading.

**Foliage:** Oval two- to five-inch leaves that can be red or green. Often turns yellow in the fall.

**Flower:** Flowers can be white, pink or red, singles or doubles.

**Fruit:** Red, yellow or green edible fruit. Fruitless varieties are also available.

**Description:** These hearty fruit trees are tolerant of drought and compact soil and require little pruning. They thrive in well-drained soils in full sun. Varieties suggested for planting are the Red Jewel, Snowdrift, and Prairie Fire.

**Pests and disease:** Can be susceptible to apple scab, aphids, mites, fire blight, apple rust, oyster shell scale, tent caterpillars, and powdery mildew in the Pacific Northwest.





*Rhus typhina*

### Staghorn Sumac

**Mature size:** Approximately 15 to 25 feet tall.

**Shape:** Loose-spreading shrub or scraggly deciduous tree.

**Foliage:** Alternate one- to two-inch pinnate leaves composed of long, pointed, separate leaflets. Spectacular scarlet fall color.

**Flower:** Flowers are small in large, showy clusters.

**Fruit:** Crimson color.

**Description:** A large, hardy plant often used for naturalizing, in mass plantings in waste areas, banks or cut areas. It does not make a good specimen tree. Random branching patterns resemble the horns of a male deer.

**Pests and disease:** May be susceptible to rusts, verticillium, leaf spots, aphids, or mites, but are usually not seriously affected.



*Styrax japonicus*

### Japanese Snowbell

**Mature size:** Approximately 25 feet tall by 25 feet or more wide.

**Shape:** Rounded to horizontal branching.

**Foliage:** Dark-green summer foliage may turn yellow to red in fall.

**Flower:** Small, white flowers hang below upward-pointing leaves along the branches. Blooms in early June.

**Description:** Plant this graceful tree in full sun to partial shade. It does best in a moist, acidic, well-drained organic soil.

**Pests and disease:** Free of pests and disease.



*Syringa reticulata subsp. pekinesis*

### Chinese Tree Lilac

**Mature Size:** Approximately 15-20 feet tall and 10-15 feet wide.

**Shape:** Deciduous shrub or small tree. Multi-stemmed. Branches slender and brownish-red when young. Bark is smooth with prominent lenticels and/or exfoliating in brown flake sheets.

**Foliage:** Simple leaves which are 3-6 inches long and green in color, changing in fall to yellow and orange. Flowers appear in early summer and are yellowish white in clusters 3-6 inches long. Small oblong fruit.

**Description:** Sun. Resistant to mildew.

# Evergreen

*Chamaecyparis obtusa*

## Dwarf Hinoki Cypress

**Mature size:** Dwarf varieties typically grow up to eight feet tall but can reach 20 feet in height.

**Shape:** Softly pyramidal to conical.

**Foliage:** Frondlike branchlets give a fernlike appearance in form and texture. Dark-green needles have silvery undermarkings.

**Description:** Short, ascending branches grow from a buttressed trunk and droop at the tips, ending in flat sprays. The dwarf form of the Hinoki Cypress works well in rock gardens. It enjoys moist, well-drained, acidic soils and full to partial shade.

**Pests and disease:** This is relatively free of pests and disease. However, Cypress trees are somewhat susceptible to twig and needle blight, leaf browning, leafminers, aphids, spider mites, root rot, or bark scales.



*Myrica californica*

## Pacific Waxmyrtle

**Mature size:** Approximately 15 feet tall by 15 feet wide.

**Shape:** Spreading.

**Foliage:** Lustrous narrow evergreen leaves are two to four inches long.

**Flower:** Some trees have white, pink-lavender or purple flowers, which grow in upright clusters at the tips of each twig. Flowers bloom typically from April through June.

**Fruit:** Small purple berries appear on female plants in fall and winter.

**Description:** Native to the coastal regions of the Pacific Northwest, this tree enjoys sun to partial shade and is drought-tolerant once it is established. Its bark is light brown and smooth when young. Older trees may have flaky outer bark, revealing pinkish inner bark or dark patches.

**Pests and disease:** Buds and leaves are favorites of deer and grouse.



*Pinus aristata*

## Bristlecone Pine

**Mature size:** A dwarf evergreen tree. It grows to approximately eight to 20 feet in height.

**Shape:** Bushy and conical.

**Foliage:** Long branches are covered with needles that resemble a fox tail.

**Description:** Among the oldest living plants: specimens have been found to be 2,000 to 7,000 years old. Makes an interesting evergreen needle plant for rock gardens or as an accent or specimen. Grows well even in poor, rocky soils; however, it is not tolerant of shade or winter winds.

**Pests and disease:** No significant pests or disease. Pines in general may be susceptible to blight, needle cast, nematodes, pine wilt, spider mites, air pollution, woolly aphids, scale, rust, sawfly larvae, moths, weevils, or gall rust.





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*Pinus densiflora Umbraculifera* **Dwarf Japanese Red Pine**

**Mature size:** Approximately 10 to 20 feet tall.

**Shape:** When young, these trees grow with a crooked or leaning habit. With time, the habit becomes more vase-shaped, with wide, spreading upward-arching branches.

**Foliage:** Plumes of rich green, three- to five-inch evergreen needles grow in twos.

**Description:** This hardy species has exquisite decorative red-brown or orange-brown bark. It can be used as a specimen or in groupings. It is quite heat-tolerant but needs well-drained soil.

**Pests and disease:** Pines in general may be susceptible to blight, needle cast, nematodes, pine wilt, spider mites, air pollution, wooly aphids, scale, rust, sawfly larvae, moths, weevils, or gall rust.



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*Taxus x media* **Anglojapanese Yew**

**Mature Size:** Variable height of 3-20 feet depending on cultivar.

**Shape:** Conifer, evergreen shrub.

**Foliage:** Spreading, shoots olive green, often reddish on the sunny side.

**Fruit:** Scarlet fleshy fruit with highly poisonous seeds.

**Description:** Sun or shade. Moist, well-drained soil.



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*Thuja occidentalis* **Arborvitae**

**Mature Size:** Mature height up to 40 feet. Only allowed under power lines with regular maintenance to reduce height. Often used for screening or hedge.

**Shape:** Conifer, evergreen shrub.

**Foliage:** Red-brown bark is furrowed and peeling. Flat sprays of foliage. Small slender cones.

**Description:** Full sun to partial sun. Prefers moist, well-drained, loamy soil. Tolerates soils that are poor, rocky, clay, compacted, dry and of various pHs extremely well. Tolerates heat, drought, humidity and pollution, but not shady situations.



# Planting Below Power Lines

## Right Plant, Right Place

### Why Use Native Plants?

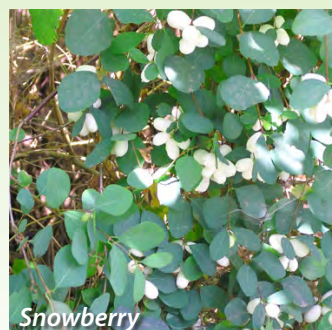
- Adapted to local climate*
- Conserve water*
- Need less fertilizer*
- Need less care after establishment*
- Provide habitat for local birds and animals*

### Native Plants

- ✦ California Hazelnut
- ✦ Cascara
- ✦ Hardhack Spiraea
- ✦ High Bush Cranberry
- ✦ Huckleberry
- ✦ Indian Plum
- ✦ Ocean Spray
- ✦ Oregon Grape
- ✦ Pacific Crabapple
- ✦ Pacific Ninebark
- ✦ Pacific Wax Myrtle
- ✦ Red Elderberry
- ✦ Red Flowering Currant
- ✦ Redosier Dogwood
- ✦ Salal
- ✦ Salmon Berry
- ✦ Silk Tassel Bush
- ✦ Sitka Mountain Ash
- ✦ Snowberry
- ✦ Twinberry
- ✦ Vine Maple
- ✦ Western Azalea



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## LONG-TERM TREE CARE

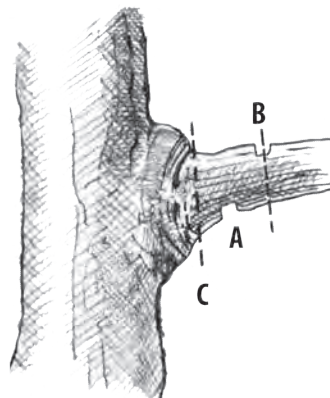
Long-term tree care is essential to ensure the health and vitality of your plant. Four components of long-term tree care are: pruning, fertilization, irrigation and pest control.

**Pruning** - Pruning is an essential operation for the growth and well-being of landscape plants. The health of the tree is improved or maintained by removing dead, diseased, and damaged wood. The quality and quantity of flowers and fruit are increased with proper pruning.

Here is the general procedure for pruning trees:

1. Remove dead, diseased, and damaged wood.
2. Remove or head back branches that are crossing other branches or growing in the wrong direction.
3. Thin, as necessary, to allow light and air into the center of the tree and for even spacing of branches.

When a pruning cut is made, the wound should be as small as possible. Before a branch is to be removed, locate the branch collar: the small fold of bark at the base of a branch where it joins the trunk. Make your cut just outside of this ridge. Cutting into the collar increases the wound size and the possibility of decay. To remove a large branch, undercut it first to avoid tearing the bark. (See diagram below.)



- A. Make the first cut (cut A) on the underside of the branch, slightly out from the branch collar.
- B. Remove the entire branch with the second full cut (cut B) from the top outside the undercut.
- C. Remove the remaining stub by the third cut (cut C) at the edge of the collar.

*NOTE: Recent research indicates that applying a wound dressing to the cut area is not necessary and may, in some cases, prove detrimental to the tree.*

# SOURCES, ADDITIONAL RESOURCES & ACKNOWLEDGEMENTS

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Seattle, WA

*Ortho Problem Solver, 2nd Edition*

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R. Kenneth Horst  
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## Websites

[www.plantamerica.com](http://www.plantamerica.com)  
[www.hortiscopia.com](http://www.hortiscopia.com)

## Information services

Center for Urban Horticulture and  
Washington Park Arboretum  
University of Washington  
(206) 543 – 8616  
<http://depts.washington.edu/urbhort>

Washington State Nursery and  
Landscape Association  
[www.wsnla.org](http://www.wsnla.org)

Washington State University Coopera-  
tive Extension Service - Snohomish  
County  
<http://snohomish.wsu.edu>

Washington Urban and Community  
Forestry Program  
(800) 523-8733

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Huckleberry



Ocean Spray



Vine Maple



Sitka Mountain Ash

# HOW TO MAKE YOUR TREES SAFER

## What you can do

- Inspect your trees regularly, especially during storm season, for warning signs
- Learn to spot the eight warning signs of structural tree defects:
  - tree care history & maintenance
  - excessive lean
  - multiple trunks
  - weakly attached branches
  - cavities/deep pockets
  - cracks in trunk or limbs
  - hangers (broken limbs in trunk)
  - deadwood.

For more details, visit [www.pnwisa.org](http://www.pnwisa.org).

- Remove anything away from a potentially hazardous tree immediately
- Call the PUD to request an examination by a certified arborist



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