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# ORNAMENTAL TREES FOR NARROW SPACES

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# ORNAMENTAL TREES FOR NARROW SPACES

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## Abstract

Many types of deciduous trees and conifers can be used when designing a landscape with narrow spaces. This publication reviews the conditions and factors that should be considered when choosing trees for narrow lots. It also presents a list of trees suitable for narrow spaces, with photos and information that includes mature tree size and hardiness zone. Only trees that do not exceed 20 feet in width at maturity are covered.

**Cover image:** Pink flowering dogwood, *Cornus florida*, in late April in western Washington.

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# Ornamental Trees for Narrow Spaces

When it comes to designing a landscape for narrow spaces, there is a wide array of trees to select from. Deciduous trees (which lose their leaves each winter) can provide seasonal shade and interesting leaf colors and textures both in the summer and the fall. Some deciduous trees are recognizable by their spring flowers, while others have notable or unique fruit, bark patterns, or branching habits. Large deciduous trees play key roles in providing shade, filtering stormwater, and absorbing atmospheric carbon dioxide. Large conifers mimic deciduous trees in those roles but also offer year-round sound-absorbing qualities as well as interesting foliage colors, textures, cones, and unique growth habits.

## Trees for Small Lots

The median lot size for new homes built in the Pacific Northwest in 2013 was 0.14 acres or approximately 6,100 square feet (U.S. Census Bureau 2015). Lots are often 60 feet wide and 100 feet deep. After installing the sidewalks, curbs, and driveway, there may be very little room left for a new tree. However, with proper selection, even a small lot can include a colorful deciduous tree or stately conifer that complements the home without extending onto an adjacent parcel. All too often homeowners simply do not plant trees on small properties as they do not want to overwhelm the site.

Figure 1. *Acer rubrum,* Bowhall red maple

A properly placed narrow deciduous tree (Figure 1) can provide good shade. If a house faces south or southeast, the maximum amount of shade in the front of the house can be achieved by placing a tree to the southwest or to the left of the front yard as viewed from the street (Starbuck 1999).

A narrow-width conifer (Figure 2) can provide year-round screening and visual interest to a home. Narrow-width conifers can be planted on the south side of a home because they will not interfere with solar radiation during the winter.

## Match Tree Size to Available Space

One of the first steps in home landscaping is the selection and placement of trees, because their height, width, canopy form, and longevity are prominent features in the total design.

Placing a large tree on a small lot can present challenges. Large trees (over 50 feet tall) on small lots can make a single-story home appear smaller (Cervelli 2005; Starbuck 1999). Tall or large trees are problematic when planted under power lines. Large trees with wide-spreading canopies planted near a property line can result in neighbors clashing over issues of shade (Maddox and Kelly 2012), leaf or needle shedding, or roots spreading onto adjacent property.

It is generally not possible to reduce the size of a mature shade tree, whether it is deciduous or coniferous. Altering the shape of a tree with excessive pruning or topping introduces large wounds that can invite fungal decay and encourage the development of undesirable water sprouts.

Figure 2. *Picea omrika,* Pendula Bruns spruce

## Mature Tree Sizes

This publication lists the height, width, form, and salient characteristics of nearly 60 different trees whose narrow width makes them suitable for use in narrow spaces. The species listed in this guide do not exceed 20 feet in width at maturity.

The data on mature tree size presented here reflect the generally recognized height of trees raised in the northern temperate zone of the United States. Data came from several university references (Bassuk et al. 2009a; Breen 2015a; UConn Plant Database 2015a; Jull 2011; Kuhns 2015a; SelecTree 2015a).

Figure 3. Round tree form example: *Cornus florida,* Pink flowering dogwood (H: 20' W: 20' Zone 5)

## Tree Forms

Shade trees and conifers come in a wide array of forms. These include round, columnar, vase, oval, pyramidal, and weeping (Kuhns and Rupp 2000). These basic forms can be further defined by their degrees of symmetry and irregularity (Fare and Clatterbuck 2000).

Round form trees (Figure 3) often have close branching and can provide dense shade.

Oval forms (Figure 4) have an egg-shaped appearance and cast shade, but still allow for the growth of understory plants.

Columnar forms (Figure 5) have a height to width ratio of 5-to-1 (Klingman 2013). Their slender upright branching habit contributes to a sense of height, which may complement double-story homes. Fastigiate trees are even narrower, with a height to width ratio of 10-to-1.

Trees with a vase form (Figure 6) are wider at the top of the canopy than at the base, allowing good light penetration for shorter plants below.

Weeping forms (Figure 7) draw the eye towards the ground (Cregg 2009).

Figure 4. Oval tree form example: *Acer grandidentatum,* Rocky Mountain® glow maple (H: 20' W: 20' Zone 4)

Pyramidal conifers (Figure 8) generally have foliage that extends close to the ground, thus serving as screens.

Emerald Sentinel sweetgum (Figure 5) would be considered symmetrical, while Weeping Sierra redwood (Figure 7) would be considered irregular.

## Trees Under Power Lines

Trees growing large enough to interfere with overhead power lines are a constant source of concern for public utility districts who must monitor these trees and trim them as needed. Power failures result when tree limbs touch the wires, often causing an area-wide outage.

Figure 5. Columnar tree form example: *Liquidambar styraciflua* 'Clydesform', Emerald Sentinel sweetgum (H: 30' W: 12' Zone 5).

Figure 6. Vase tree form example: *Acer griseum,* Paperbark maple (H: 25' W: 20' Zone 5)

Figure 7. *Sequoiadendron giganteum* 'Pendulua', Weeping Sierra redwood (H: 35' W: 5' Zone 6)

Do not plant any tree that exceeds 30 feet in height at maturity, under power lines that, by convention, are 30 feet above the ground (Olsen et al. 2009). Do not plant any tree whose side limbs will come within 15 feet of overhead power lines.

Narrow-width deciduous trees that could be used beneath utility lines are listed in Table 1. So-called "utility trees" have pedestrian-friendly branching habits and tolerance for urban conditions, and they do not produce messy fruit.

Table 1. Power-line-compatible trees.

Figure 8. Pyramidal tree form example: *Chamaecyparis obtusa* 'Crippsii', Crippsii Hinoki falsecypress (H: 30' W: 20' Zone 4)

## Trees for Boulevard Planting Strips

Some of the deciduous trees described in this guide could serve for use along boulevards, in the planting strip area between the street curb and the sidewalk, also known as the verge.

Pedestrian-friendly shade trees would include those with an oval, columnar, or vase shape, where the lower branches can be selectively removed, up to a height of 8 feet above the full width of the sidewalk for pedestrians and to 14 feet over the full width of streets for vehicles (Gilman and Sadowski 2007).

Conifers are generally not used in a verge because they block motorists' views. For a wide verge (over 8 feet), local jurisdictions may allow large trees that can exceed 20 feet in width.

## Native Trees for Narrow Spaces

There are northwest native plants that mature to less than 20 feet that could be used in narrow spaces (Table 2). These plants are popular in the landscape trade because they do not require supplemental irrigation once they are established (approximately two years), and they are typically free from pest problems. In addition, there are cultivars, so called near natives, such as Incense cedar ('Maupin Glow'), Alaska cedar ('Green Arrow', 'Glauca Pendula', 'Strict', and 'Aureovariegata'), Vine maple ('Pacific Fire' maple and 'Pacific Purple'®maple) and Quaking Aspen ('Mountain Sentinel® Aspen and Prairie Gold® Aspen) that offer unique ornamental characteristics that often make them good candidates for smaller lots.

## Winter Hardiness

USDA Plant hardiness zones help define the optimum growing climates for all ornamentals. One can use a ZIP code to look up the local hardiness zones (USDA-ARS 2012).

There are five winter hardiness zones in Washington State (Figure 9). Half of the 60 different trees listed in this publication are hardy to Zone 4. All of the plants listed in this guide will perform well in all areas west of the Cascade Mountains.

Table 2. Northwest native trees.

Figure 9. USDA Hardiness Zone map for Washington State.

# Invasive Plants

This publication does not include trees located anywhere in the United States that are listed in the USDA Introduced, Invasive, or Noxious Plants database (USDA-NRCS 2015a).

Note, there are many popular ornamental trees, such as Norway maple (*Acer platanoides*), flowering cherry (*Prunus* spp.), and flowering pear (*Pyrus calleryana*) that do appear in the USDA-NRCS plants database. These introduced (non-native) plants may become invasive or noxious since they lack co-evolved competitors and natural enemies to control their populations.

# Tree Availability

The majority of the species and cultivars listed in this guide should be available from independent garden centers. The deciduous shade trees typically come in 10- or 15-gallon pots, depending upon the age of the tree. As the conifers typically grow more slowly, they are often sold in 2- to 5-gallon pots at garden centers. Landscape contractors can supply the larger-sized plants.

All of the trees listed in this guide are currently advertised as available from wholesale producers in Oregon and Washington. Landscape contractors can source trees as needed from wholesale nurseries and install them in landscapes (Ophardt and Hummel 2011).

# Deciduous Trees

Deciduous trees are grouped here by dominant attribute or feature: spring bloom, fall color, or suitability for light shade. An alphabetical list of deciduous trees with their specific attributes is presented afterwards, in Table 3.

## *Spring bloom*

Flowering trees add beauty and seasonal interest to the landscape. Their short, but often intense, flowering cycle frequently coincides with the beginning of plant growth in the spring. The following trees are best recognized for their spring-blooming attributes.

### *Carpinus japonica*
### Japanese hornbeam

This flowering tree from Japan forms an oval shape with arching branches. Leaves are green with prominent veins and serrated leaf margins. Both male and female flowers appear on the same tree as 2”-long, hop-like capsules that hang from the branches (Missouri Botanical Garden 2015a). Adapts well to all soil types. Yellow fall foliage. Sun to partial shade.

H: 30’ W: 20’ Zone 4

Figure 10.

Figure 11.

### *Cornus florida*
### Pink Flowering dogwood

Widely recognized by its showy pink or white flower bracts that appear before the leaves, dogwood forms a rounded canopy that grows wider in the shade (Shaughnessy and Polomski 2006). Glossy red fruit (0.8” long) appear in clusters of 3 or 4. Does best on well-drained sites with plenty of sun and air movement to keep the foliage free from leaf-spot disease. Red fall leaf color.

H: 20’ W: 20’ Zone 5

Figure 12.

Figure 13.

### *Cornus kousa chinensis*
### Chinese Kousa dogwood

Chinese dogwood comes in a wide array of cultivars but generally has a wide vase form. This species features star-shaped white flower bracts in June, green summer foliage, and scarlet red fall foliage. It has better leaf-disease resistance than Pink Flowering dogwood (Williamson 2015). Large berry-like fruits (up to 1.25” in diameter) form in the fall.

H: 20’ W: 20’ Zone 5

Figure 14.

Figure 15.

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### *Chionanthus retusus*
### Chinese Fringetree

This species has a broad oval form. Obovate leaves (egg-shaped, narrower at base) up to 8” long, dark green, with a thick, waxy texture (UConn Plant Database 2015b). White flowers are born in June, clustered in 3”-long panicles at the ends of the branches. Olive-like fruit is 0.5” long and dark blue. Can tolerate partial shade. Prefers acidic soils.

H: 20’ W: 20’ Zone 5

Figure 16.

Figure 17.

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### *Halesia carolina*
### Mountain Silverbell

Rounded form with low branching habit. Profusion of white bell-shaped flowers born in May that hang from the branches. These give rise to 1”- to 3”-long oval yellow fruit in the fall. Green summer foliage turns yellow in the fall. Peeling bark. Prefers slightly acidic sites and can tolerate partial shade (Yiesla, Schuster, and Paulsrud 2014).

H: 30’ W: 20’ Zone 4

Figure 18.

Figure 19.

### *Malus* 'Schmidtcutleaf' Golden Raindrops® crabapple

Upright vase shaped with slender limbs spreading horizontally. Green leaves are deeply lobed, turning a beautiful orange in the fall. White 5-petal flowers. Tiny ¼" yellow fruit is abundant. Excellent resistance to apple scab (Delahaut, Worf, and Hasselkus 1997) but not fire blight. **Power line suitable.**

H: 20' W: 15' Zone 3

FIgure 20.

Figure 21.

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### *Malus* 'Sutyzam' Sugar Tyme® crabapple

Upright spreading oval form. Sets a profusion of white, 5-petal, fragrant flowers in April that cover the branches. Later these give rise to ½" red fruit that persists into the fall. Summer foliage is green, while fall color is bronze. Apple scab and fire blight resistance are both rated as good (Jull 1999). Susceptible to codling moth, so avoid planting near commercial orchards. **Power line suitable.**

H: 18' W: 15' Zone 4

Figure 22.

Figure 23.

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### *Malus* 'Prairifire' Prairifire crabapple

Rounded form with open limb structure. Spring foliage is reddish-maroon upon emergence before turning green for the summer. Single red flowers have a fragrant odor, later developing into ½" drupes that persist into the fall (Breen 2015b). Excellent scab resistance; good fire blight resistance. Susceptible to codling moth, so avoid planting near commercial orchards. **Power line suitable.**

H: 20' W: 20' Zone 4

Figure 24.

Figure 25.

### *Styrax japonicus* 'JFS-E'
### Snow Charm® Snowbell

Rounded canopy with horizontal limbs. Late spring flowers have five lobes with yellow stamens that hang from the branches (UConn Plant Database 2015d). Green lustrous leaves are 3.5" long, turning to yellow-red in the fall. Fruit consists of dry oval drupes that persist into the fall. Prefers acidic sites and can tolerate shade. **Power line suitable.**

H: 20' W: 20' Zone 5

Figure 26.

Figure 27.

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### *Syringa reticulata* 'Ivory Silk'
### Ivory Silk® Japanese Tree lilac

Rounded, oval canopy with an upright dense branching habit. Best known for its creamy white fragrant flower panicles (up to 12" long), which appear at the ends of the branches in early summer (Kwantlen 2015). Large ovate leaves to 5" in length with a dark green summer color. Best under full sun. Adaptable to all soil conditions. **Power line suitable.**

H: 20' W: 15' Zone 4

Figure 28.

Figure 29.

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### *Acer circinatum*
### Vine maple

This tree forms an upright vase shape when grown in full sun. Twisty limbs are produced on a tree bearing 2 or 3 stems. Leaves are 3" across, round to cordate (heart-shaped), with 7–9 lobes that are doubly toothed. Green summer foliage gives rise to deep red fall foliage (USDA-NRCS 2015b). Widely adaptable and drought tolerant. Grows wider in the shade. **Northwest native.**

H: 15' W: 10' Zone 6

Figure 30.

Figure 31.

### *Acer griseum*
### Paperbark maple

With its oval canopy and upright scaffold limbs, this tree is ideal for narrow spaces. It offers exfoliating cinnamon-brown bark, crisp green summer foliage, and red fall color with cooler night temperatures. It is shade tolerant but prefers full sun. It will tolerate alkaline sites (Gilman and Watson 2013). It requires well-drained soil to perform at its best. **Power line suitable.**

Figure 32.

H: 20’ W: 15’ Zone 3

Figure 33.

## *Red fall color*

The formation of red fall leaf color is attributed to anthocyanins that accumulate in the leaves near the end of the summer (Acker et al. 2011). The intensity of fall color is determined by air temperature, sunlight, and soil moisture levels. When conditions include cool nights and bright days in the fall, red colors can become more pronounced.

### *Acer rubrum* ‘Red Rocket’
### Red Rocket maple

A columnar red maple best known for its narrow width and bright red fall color (Bassuk et al. 2009b). Typically 3-lobed leaves are green in the summer, before developing their fall color. This cultivar is seedless. Best under full sun. Can withstand wet sites. Prefers neutral or acidic soils. An excellent replacement for Norway maples, which can be invasive (USDA-NRCS 2015a).

Figure 34.

H: 40’ W: 15’ Zone 3

Figure 35.

### *Acer saccharum* 'Barrett Cole' Apollo® sugar maple

This sugar maple cultivar features a narrow columnar canopy and very dense, ascending branches. Dark green summer foliage gives rise to yellow-orange to red coloration in the fall. It is not particular as to soil type but does require full sun. Reported to have good heat resistance (Bassuk et al. 2009b).

H: 30' W: 10' Zone 4

Figure 36.

Figure 37.

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### *Amelanchier × grandiflora* Autumn Brilliance® Serviceberry

Upright form often with multiple stems though it can be kept to a single trunk. Green summer foliage gives rise to a bright orange-red fall color. Spring flowers are white and abundant. They give rise to purple-black berries in the fall for the songbirds. Can tolerate alkaline soils (Bassuk 2009a). **Power line suitable.**

H: 20' W: 15' Zone 4

Figure 38.

Figure 39.

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### *Crataegus phaenopyrum* Washington hawthorn

Rounded canopy with umbrella shape. Deeply lobed, glossy green leaves in the summer turning to a coppery red in the fall (SelecTree 2015b). Profuse white flowers in the spring give rise to ¼" red fruit in the fall that last all winter. Prominent 1"-long thorns. Susceptible to codling moth, so avoid planting near commercial orchards. **Power line suitable.**

H: 25' W: 20' Zone 4

Figure 40.

Figure 41.

### *Liquidambar styraciflua*
### Slender Silhouette sweetgum

A very narrow fastigiate sweetgum cultivar that will easily fit into confined spaces as long as it gets full sun. During the summer the foliage is green, while in the fall the red color is outstanding. This tree can do well on clay sites as long as they are well drained (Kormanik 1990). Very few seed pods form on this cultivar.

H: 60’ W: 8’ Zone 5

Figure 42.

Figure 43.

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### *Nyssa sylvatica* ‘David Odom’
### Afterburner® Tupelo

Black tupelo is a southeast native tree that is best known for its glossy green summer foliage (UConn Plant Database 2015e) that turns shades of bright red in the fall. This 2013 cultivar has an upright oval form and holds its red color further into the fall better than the native species. Tupelo trees can tolerate wet, compacted soils that are often found in urban settings.

H: 35’ W: 20’ Zone 5

Figure 44.

Figure 45.

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### *Oxydendrum arboreum*
### Sourwood

Forming a rounded canopy, Sourwood produces glossy green summer foliage followed by scarlet foliage in the fall. In early summer, 8”-long, pendulous white flower clusters form on the exterior of the crown, which persist into the fall as greenish-white seed pods. This species will only grow on well-drained, acidic sites (Niemiera 2012).

H: 20’ W: 15’ Zone 5

Figure 46.

Figure 47.

### *Parrotia persica* 'JL Columnar' Persian Spire™ Parrotia

This 2013 parrotia cultivar forms a narrow columnar canopy with narrow leaves that change from purple in the spring to light green with purple edges in the summer and long-lasting shades of orange, yellow and red in the fall. Multiple plants of parrotia could be used to form a hedge. **Power line suitable.**

H: 25' W: 10' Zone 5

Figure 48.

Figure 49.

## *Yellow-orange fall color*

Plants that accumulate the yellow pigments known as xanthophylls or the orange pigments known as carotenoids will develop yellow-orange leaves in the fall. While these pigments have been there all summer, their presence has been masked by the chlorophyll pigment, which is responsible for the green color of leaves. Fall weather does not seem to influence the color intensity of species with yellow and orange leaf colors (Clatterbuck 1999).

### *Acer grandidentatum* Bigtooth maple

Rounded crown and may have more than one stem. Leaves are 2" or 3" across and have 3–5 lobes resembling those of sugar maples. Widely grown in the intermountain west areas on dry sites (Kuhns 2015b). It does not tolerate wet sites but grows on alkaline soils. Green summer foliage turns yellow to orange-red in the fall.

H: 25' W: 15' Zone 4

Figure 50.

Figure 51.

### *Acer rubrum* 'Bowhall'
### Bowhall red maple

Broadly columnar in shape. The foliage is green during the summer before turning reddish orange in the fall (red on the east side of Washington State). All red maples can survive on wet sites (Gilman and Watson 1993a), though they are considered drought tolerant once established. Avoid alkaline sites where leaf chlorosis can occur.

H: 40' W: 15' Zone 4

Figure 52.

Figure 53.

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### *Acer saccharum* 'Sugar Cone'
### Sugar Cone maple

Sugar maple is a staple of the northeastern U.S.'s hardwood forest. It prefers cool, moist summers in deep, well-drained acidic soils (Rhodus 2015a). The Sugar Cone cultivar forms a compact dwarf pyramid with dark green leaves in the summer followed by orange-red fall coloration. Not suitable for hot, dry sites or where soils are compacted. **Power line suitable.**

H: 25' W: 13' Zone 4

Figure 54.

Figure 55.

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### *Carpinus betula* 'Frans Fontaine'
### Frans Fontaine hornbeam

European hornbeam is known for its pleated foliage and symmetrical branching habit. The cultivar Frans Fontaine forms a very narrow upright shape with vertically growing branches (Niemiera 2010). Ovate, sharply toothed dark green leaves, which turn golden-yellow in the fall. Smooth gray bark has distinctive muscle-like fluting. Often used in hedges. Performs well on most soil types.

H: 35' W: 15' Zone 5

Figure 56.

Figure 57.

### *Celtis occidentalis* 'JFS-KSU1' Prairie Sentinel® Hackberry

Hackberry is normally a large spreading landscape tree. This fastigiate cultivar has a very narrow upright form for tight spaces. As with the species, this variant has excellent adaptability to heat and drought. The green summer foliage turns a very nice yellow color in the fall before the leaves are shed.

H: 45' W: 12' Zone 4

Figure 58.

Figure 59.

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### *Populus tremuloides* Quaking Aspen

Quaking or Trembling Aspen is one of the most widely distributed trees in North America (Perala 1990). It is considered a fast-growing small tree as an ornamental. Summer foliage is green, before turning yellow in the fall. In western Washington, it prefers sunny, windy locations to keep the foliage free from leaf spot. **Northwest native.**

H: 30' W: 15' Zone 3

Figure 60.

Figure 61.

## *Sites with light shade*

The suggested trees listed here are best known for preferring lightly shaded sites.

### *Acer shirasawanum* 'Aureum' Golden Fullmoon maple

This small garden maple from Japan forms a rounded canopy producing rounded leaves each with 9–13 shallowly incised lobes. New leaves are bright yellow, summer foliage is chartreuse, and fall colors range from orange to red. Best with partial shade as the leaves will scorch in full sun. Unique branching structure adds winter interest.

H: 20' W: 18' Zone 5

Figure 62.

Figure 63.

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### *Stewartia pseudocamellia* Japanese Stewartia

This summer-flowering species produces showy white flowers with yellow-orange centers from June through July. The pyramidal canopy produces dark green summer foliage followed by orange and red in the fall. The exfoliating red bark adds winter interest (Missouri Botanical Garden 2015b).

H: 30' W: 20' Zone 6

Figure 64.

Figure 65.

Table 3. Deciduous tree attributes.

# Coniferous Trees

Coniferous trees are grouped here by attribute or feature: suitability for use as a living screen, growth habit, or foliage color. An alphabetical list of deciduous trees with their specific attributes is presented afterwards, in Table 4.

## *Conifers for screening*

There are a number of less expansive conifers that can be used for narrow spaces. The ones listed here feature pyramidal shapes with branches that extend nearly to their bases, thus ensuring screening all year long. Each tree listed has a unique color and texture that makes it stand out from traditional forest conifers.

### *Calocedrus decurrens*
### Incense cedar

This tree forms a tall spire over time. It features rich green foliage in soft sprays that have a pleasing smell when crushed. It has an overall shaggy appearance and reddish bark (Kuhns 2012). It is widely adapted to different soil types and is drought tolerant. It prefers full sun but can withstand light shade. **Northwest native**.

H: 70’ W: 20’ Zone 5

Figure 66.

Figure 67.

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### *Chamaecyparis nootkatensis*
### Weeping Alaska cedar

Growing from Alaska to southwest Oregon, this species prefers the cool, wet climate of western Washington. It features a nodding central leader and horizontal branches with weeping dark blue-green foliage that hangs from the limbs. Best in full sun but can take partial shade. Prefers acidic soils. **Northwest native.**

H: 35’ W: 12’ Zone 4

Figure 68.

Figure 69.

### *Chamaecyparis obtusa* 'Gracilis' Slender Hinoki Falsecypress

This Asian conifer forms a narrow pyramid with an open branching habit, producing soft, glossy, dark green foliage. The bark is reddish brown and exfoliating. This species prefers highly acidic to neutral soil pH and can tolerate heavy soil. Multiple plants could be planted in a row to form a hedge. Overall growth rate is slow.

H: 20' W: 15' Zone 4

Figure 70.

Figure 71.

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### *Cupressocyparis leylandii* Leyland cypress

A fast-growing conifer that develops a dense pyramidal form. Fine, feathery foliage hangs from ascending branches. Can tolerate nearly all soil types as long as they are well drained (Gilman and Watson 2006a). While normally grown as a single plant, multiple plants can be used to form a wide hedge, which can be sheared.

H: 50' W: 20' Zone 6

Figure 72.

Figure 73.

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### *Juniperus chinensis* 'Torulosa' Hollywood juniper

Chinese juniper comes in numerous forms. This cultivar features a dense, upright growth habit, with individual branches emerging from the main trunk taking on a recurved growth habit. The foliage is bright green. This cultivar can be pruned to maintain a narrower width (Gooch and Cregg 2009). Widely adapted to most sites, including those that have partial sun (SelecTree 2015c). Drought tolerant once established.

H: 20' W: 10' Zone 5

Figure 74.

Figure 75.

### *Pinus flexilis* 'Vanderwolf's Pyramid' Vanderwolf's Pyramid pine

This limber pine cultivar is grown for its soft, feathery foliage consisting of twisted silvery-blue needles in bundles of five (Cox and Klett 2014). With age it develops a broadly columnar shape with dense branching near the ground. It does well on most soil types and is considered drought tolerant once established. It prefers full sun. Multiple plants could be used to form a dense screen.

H: 30' W: 20' Zone 4

Figure 76.

Figure 77.

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### *Sciadopitys verticillata* Japanese Umbrella pine

Narrow pyramidal form with umbrella-like whorls of bright green needles that grow at the ends of the branches. Needles are up to 5" long with a thick waxy texture. They cluster at the ends of the branches in whorls. This species prefers moist, rich, slightly acid sites with cooler summers (Niemiera 2008). There are cultivars with different growth shapes. It features orange peeling bark.

H: 30' W: 20' Zone 5

Figure 78.

Figure 79.

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### *Tsuga mertensiana* Mountain hemlock

This species develops slowly into a narrow pyramidal form bearing thin, nodding branches. Needles are spirally arranged and short (½"– ¾" long). They have a blue-green color. The bark is reddish-brown. Cones are small (1"-3") and hang vertically. This species does best with mild winters, mild summers, and high precipitation (Seiler et al. 2014). **Northwest native.**

H: 30' W: 15' Zone 5

Figure 80.

Figure 81.

## *Conifers with a columnar growth habit*

Conifers with a tall upright and narrow growth habit are popular in the landscaping industry for use as accent specimens, helping to draw attention to a particular portion of the yard (Cregg 2007). Columnar conifers make excellent hedges as they have narrow mature widths and dense foliage habits, thus providing privacy without taking up too much space in the landscape. The most popular cultivars include Skyrocket juniper, Degroot's Spire arborvitae, and Emerald Green arborvitae. Emerald Green is the most commonly grown arborvitae cultivar in Washington State.

### *Abies koreana* 'Horstmann's Silberlocke' Horstmann's Silberlocke Korean fir

Narrow pyramidal conic form with striking recurved or upturned green needles with silver undersides give this species a flocked appearance (SelecTree 2015d). In the spring, upright purple cones form near the top of the tree. Considered drought tolerant once established. Shear young plants (under 3') to develop a tapered conic wedge form.

H: 20' W: 8' Zone 5

Figure 82.



Figure 83.

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### *Cedrus atlantica* 'Fastigiata' Fastigiate Atlas cedar

With both a columnar habit and upright branches, this Atlas cedar cultivar makes an interesting accent species. It sports short blue-green needles. It is considered drought tolerant once established and does well on all soil types. It bears conical cones that are born upright.

H: 30' W: 15' Zone 6

Figure 84.



Figure 85.

### *Chamaecyparis nootkatensis* ‘Strict Weeping’ Strict Weeping cedar

Very narrow cultivar of Alaska Weeping cedar whose pendulous foliage hangs down tightly near the central trunk (Cregg 2012). An occasional side branch will take off but will still have the same form, giving each tree its own personality. Does best on well-drained soils, acidic to neutral in pH. Avoid hot, dry sites. Used as a focal point in the landscape.

H: 30’ W: 12’ Zone 5

Figure 86.

Figure 87.

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### *Juniperus virginiana* ‘Sky Rocket’ Sky Rocket Eastern red cedar

This eastern red cedar juniper retains a columnar growth habit with strictly ascending limbs. It is often used in hedge plantings (Gilman and Watson 2006b). Its foliage is bluish-green and scale-like. It is tolerant of arid conditions. It needs full sun to keep the crown full. At maturity it may release its side branches under snow loads. Avoid planting on wet sites.

H: 15’ W: 3’ Zone 4

FIgure 88.

FIgure 89.

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### *Picea glauca* ‘Pendula’ Weeping White spruce

White spruce is an adaptable tree that can be grown on many different soil types. This cultivar is best recognized by its very narrow rocket ship form and strictly pendulous growth habit. Needles are blue-green. With its narrow shape, it can be planted on property lines or near structures. Foliage extends to the ground.

H: 30’ W: 8’ Zone 4

Figure 90.

Figure 91.

### *Picea omorika* 'Pendula Bruns' Bruns Weeping Serbian spruce

This fascinating Serbian spruce variant has a tall spire-like shape with a twisting leader and weeping branches. The needles are two-toned: green on top and silver on the underside. Cones are purple. Ensure that it receives full sun and well-drained soil. It is not particular about soil pH.

H: 25' W: 8' Zone 4

Figure 92.

Figure 93.

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### *Sequoiadendron giganteum* 'Pendulum' Weeping Sierra sequoia

Sequoia redwoods are common to the Sierra Nevada mountains of California. This variant grows tall and narrow like its parent, but it differs in that it only matures to a very narrow width. It features weeping foliage and irregular growth habits. Foliage extends to the ground. Best on sunny sites with acidic, sandy loam soils and full sun exposure.

H: 35' W: 5' Zone 6

Figure 94.

Figure 95.

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### *Thuja occidentalis* 'Smaragd' Emerald Green arborvitae

A tight columnar growth habit and moderate height makes this one of the most popular hedging cedars (UConn Plant Database 2015c). Leaves in flattened sprays of emerald-green foliage. Prefers deep, well-drained sites and full sun. Space 2' or 3' apart in a row for privacy hedging. This cultivar shows excellent cold and heat tolerance. It can withstand alkaline soils (Cregg 2005).

H: 15' W: 3' Zone 4

Figure 96.

Figure 97.

## *Conifers with yellow foliage*

The following selections are described as having yellow foliage. With extended periods of cloudy weather in Washington State from October through late March, a plant with golden foliage can help add interest to the winter garden. The following selections hold their color in all but the hottest regions of Washington State.

### *Abies koreana* 'Aurea'
### Golden Korean fir

This Korean fir cultivar forms a pyramidal shape if initially staked and lightly sheared. It features lemon-yellow needles with white undersides in the spring. Over the summer the foliage fades to chartreuse. Purple cones form in late summer and persist into the fall (SelecTree 2015d). Best in full sun and moderate climates.

H: 20' W: 15' Zone 6

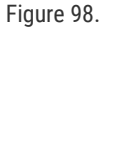

Figure 98.

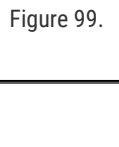

Figure 99.

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### *Abies pinsapo* 'Aurea'
### Golden Spanish fir

Conic growth form. Bears rigid yellow needles with blue-green undersides. Irregular growth form when young, improving over time. In hot climates, it prefers afternoon shade to retain its needle color. Red cones are born in the fall. Does well on both acidic and slightly alkaline soils (Missouri Botanical Garden 2015c).

H: 25' W: 15' Zone 6

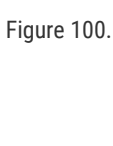

Figure 100.

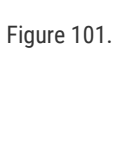

Figure 101.

### *Calocedrus decurrens* ‘Maupin Glow’ Maupin Glow Incense cedar

This smaller variant of Incense cedar forms a narrow pyramidal shape over time. This cultivar features bright golden new growth with green older growth. Branches are held horizontally. Foliage has a pleasing smell if crushed. This cultivar is highly drought tolerant. It is not particular as to soil type. Best color with full sun.

H: 15’ W: 4’ Zone 6

Figure 102.

Figure 103.

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### *Chamaecyparis obtusa* ‘Crippsii’ Crippsii Hinoki Falsecypress

Upright conical shape. A fast-growing Hinoki cypress that features golden yellow new growth covering greenish-yellow older growth (Gilman and Watson 1993b). Protect from winter sun and winds in the hotter regions of Washington State. Prefers acidic soils. Multiple plants can be grown in rows and hedged. Yellow color is best under conditions of full sun.

H: 30’ W: 20’ Zone 4

FIgure 104.

Figure 105.

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### *Cupressocyparis leylandii* ‘Gold Ryder’ Gold Ryder cypress

This cultivar of Leyland cypress features the same shape as the species but has bright gold-tipped needle tips contrasting with lime-green interior foliage. It does not grow as tall or as wide as the species. Once established, it is drought tolerant. It grows vigorously at 2’ per year, forming a narrow pyramidal shape.

H: 35’ W: 15’ Zone 6

Figure 106.

Figure 107.

### *Picea orientalis* 'Skylands'
### Golden Oriental spruce

Forming a narrow conic wedge, this oriental spruce features bright yellow, very dense foliage. Needles are 4-sided with blunt tips. Not site-specific in terms of soil pH (Walton and Cregg 2008). Best on sites that do not dry out. On all but the hottest sites, the best color comes with full sun exposure.

H: 30' W: 10' Zone 4

Figure 108.

Figure 109.

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### *Picea mariana* 'Aureo-variegata'
### Variegated Black spruce

Black spruce is a native species growing extensively across the northern tier states and into Canada. This cultivar features golden spring growth overlaying blue-green interior foliage. Branches are held horizontally. This tree can withstand wetter sites. Black spruce prefers acidic soils.

H: 30' W: 10' Zone 3

Figure 110.

Figure 111.

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### *Pinus strobus* 'Louie'
### Louie Eastern white pine

Eastern white pine occurs all through the northeast (Rhodus 2015b). This cultivar features golden yellow new growth covering golden green interior needles. At maturity this cultivar largely forms a symmetrical pyramid bearing dense soft foliage. Best with full sun and acidic soils. Considered a slow-growing selection.

H: 10' W: 6' Zone 3

Figure 112.

Figure 113.

## *Conifers with blue-green foliage*

The following selections are described as having a bluish tint to their green foliage.

### *Cedrus atlantica* 'Glauca Pendula' Weeping Blue Atlas cedar

This blue atlas cedar cultivar is best known for its weeping silvery-blue foliage. Young plants can be staked to a vertical pole (5'–10') and left to cascade downward. Alternatively, a second horizontal pole can be used to extend the canopy out to a distance of 15'–20'. Best with full sun. Drought tolerant once established.

H: 10' W: 20' Zone 5

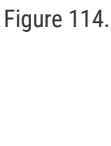

Figure 114.

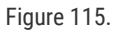

Figure 115.

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### *Chamaecyparis pisifera* 'Boulevard' Boulevard Falsecypress

Japanese falsecypress comes in a wide array of different cultivars. The Boulevard cultivar features soft, silvery blue-grey foliage. In the nursery trade it is often pruned into various topiary forms (spirals and pom-poms), which are used as foundation plants, but it can be left on its own to form a pyramidal shape.

H: 20' W: 12' Zone 4

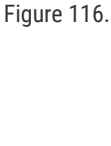

Figure 116.

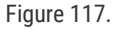

Figure 117.

### *Cupressus glabra* 'Blue Ice'
### Blue Ice Arizona cypress

A number of different cultivars have been selected from the Arizona cypress tree. This cultivar features silver-blue foliage arranged on mahogany-colored, horizontal branches. It is considered a fast-growing (greater than 6" per year) species. It prefers well-drained soil and is very drought tolerant once established.

H: 25' W: 12' Zone 7

Figure 118.

Figure 119.

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### *Juniperus scopulorum* 'Wichita Blue'
### Wichita Blue juniper

This Rocky Mountain juniper cultivar features light blue-green outer foliage with a darker green interior (Missouri Botanical Garden 2015d). Forms a teardrop, oval-shaped outline. Could be planted in rows to form a hedge. Prefers full sun and dry conditions. Can be lightly sheared (remove less than 6") as needed for hedge applications.

H: 15' W: 6' Zone 3

Figure 120.

Figure 121.

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### *Picea pungens* 'Baby Blue Eyes'
### Baby Blue Eyes spruce

Colorado blue spruce can grow to a very large size (>60' tall) in the landscape. This cultivar is best suited to smaller spaces as it does not grow as tall. It features silver-blue foliage that is very sharp to the touch. This plant grows slowly, at only 2" to 3" per year. It likes well-drained sites but is drought tolerant once established.

H: 25' W: 10' Zone 5

Figure 122.

Figure 123.

### *Pinus koraiensis* 'Silveray'
### Silveray Korean pine

Korean pines are noted for their drought tolerance and winter hardiness. This cultivar features bicolored needles that are bright silvery-blue on one side, green on the other. They are 3"–5" long and come in bundles of five. They radiate out from upright branches. This species tolerates a wide array of soil types as long as they are well drained. Large pineapple-shaped cones form in the fall.

H: 20' W: 10' Zone 4

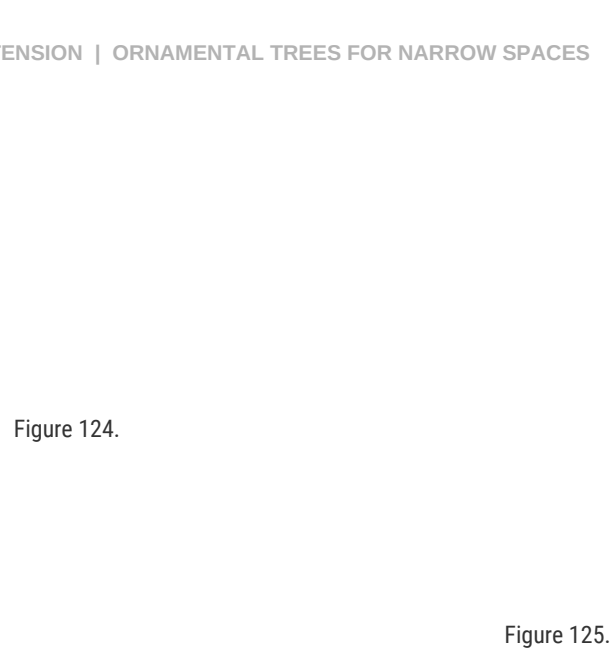

Figure 124.



Figure 125.

Table 4. Coniferous tree attributes.

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## Photographs:

J. Frank Schmidt and Son Company provided the following photos:
**Figures 20–21**: *Malus* 'Schmidtcutleaf' Golden Raindrops®crabapple; **Figures 34–35***: Acer rubrum* 'Red Rocket';
**Figures 36–37**: *Acer saccharum* 'Barrett Cole' Apollo® sugar maple; **Figures 44–45**: *Nyssa sylvatica* 'David Odom' Afterburner® Tupelo;
**Figures 48–49** *Parrotia persica* 'JL Columnar' Persian Spire™ Parrotia; **Figures 54–55**: *Acer saccharum* 'Sugar Cone' Sugar Cone maple; and **Figures 58–59**: *Celtis occidentalis* 'JFS-KSU1', Prairie Sentinel® Hackberry.

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