



Summer-Dry Winter-Wet Shrubs and Trees


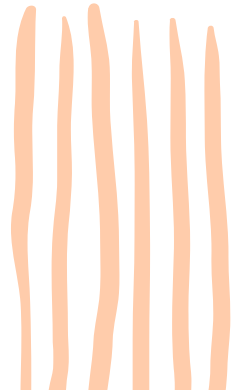


Master Gardener
Program

WASHINGTON STATE UNIVERSITY
EXTENSION

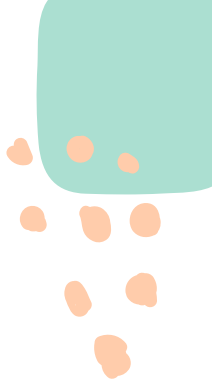


What's up?

- What is summer-dry/winter-wet?
 - What is waterwise landscaping
 - How do you choose a plant?
 - Site characteristics, planning, spacing
 - Common mistakes
 - What to look for at the nursery
 - How to plant a tree/shrub
 - “Establishing” your new plant
 - Irrigation
 - Tree Choices
 - Plant Choice
 - Searchable databases
- 
- 


Why use water-efficient landscaping in home gardens?

- Save money on water bills
- Environmental concerns-protect our water supply
- Save time and labor maintaining the garden
- Try something new
- Hotter summers are hard on my existing trees, shrubs, and flowers.
- Improve the appearance of my home



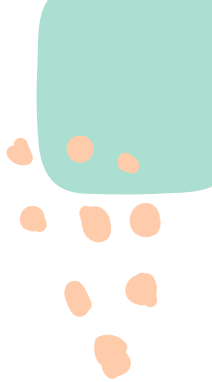
Water-efficient (waterwise) landscaping



- PNW--Mediterranean climate--mild but wet winters; dry, warm, summers
 - Traditional Eastern US landscape plants are guzzlers!
 - Native plants
 - Plants from “summer dry” climates
 - Lots of choices for eye-pleasing color, diversity, and texture
 - Bulbs · Native Plants · Herbs · Ornamental Grasses · Selected lists of trees, shrubs & vines
- 

Key concepts of water-wise gardening

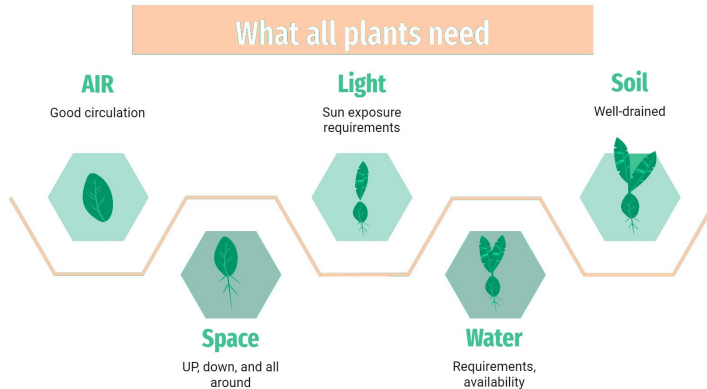
- 1) Planning and design
- 2) Soil that works
- 3) Turf that works
- 4) Right plant right place
- 5) Smart watering--HYDROZONING!
- 6) MULCH!
- 7) Maintaining your garden



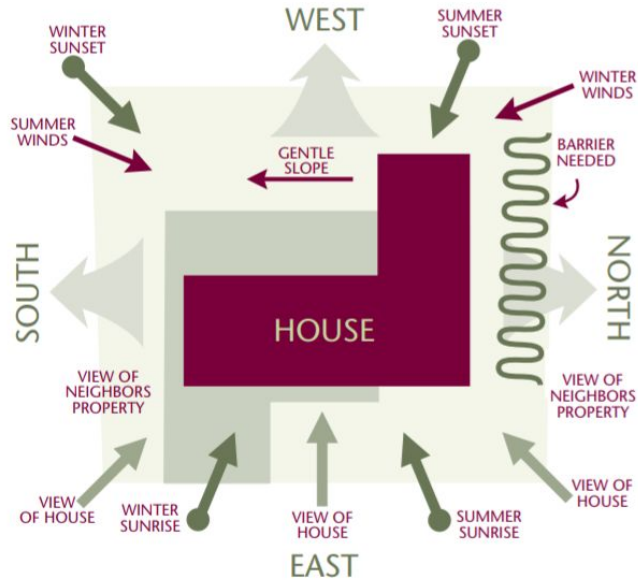
So many choices--how do I choose?

Size, shape, foliage, flower color

Most important--will the site provide the conditions the plant needs to thrive?



Make a plan!



EXISTING SITE CONDITIONS

- NOTE ON SOIL TYPE • SOIL IS MAINLY CLAY WITH SOME SAND IN IT, FAIR TO POOR DRAINAGE. CHECK WITH COUNTY EXTENSION OFFICE TO HAVE SOIL TESTED.

<https://www.corvallisoregon.gov/publicworks/page/water-efficient-plant-guide>

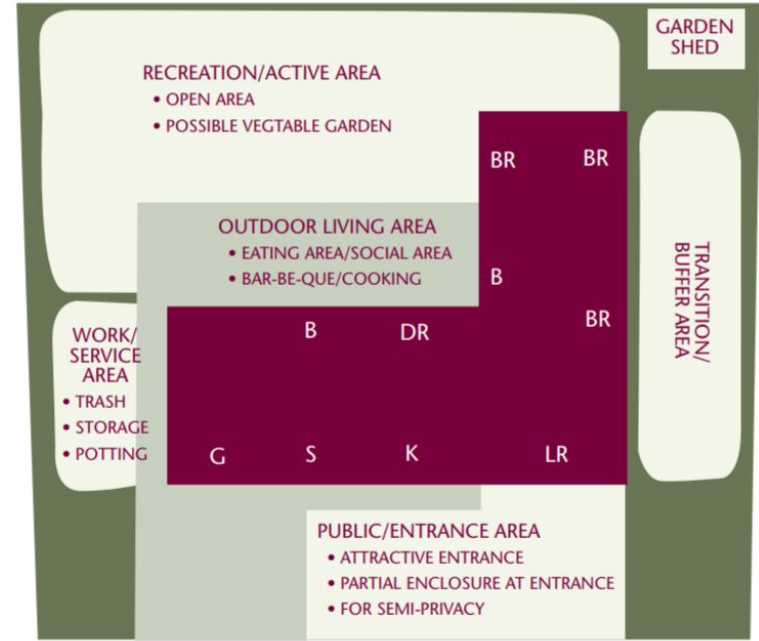
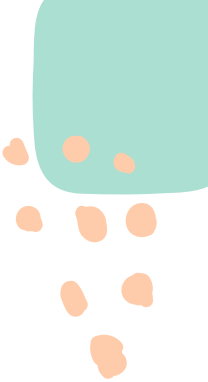


DIAGRAM SPACE NEEDS

<https://www.corvallisoregon.gov/publicworks/page/water-efficient-plant-guide>

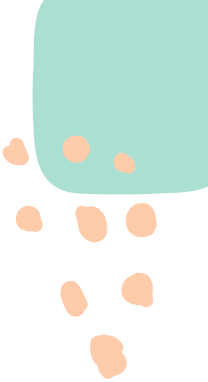
Spacing

- **Trees**--look at the mature height. That's how far apart to plant them.
- **Shrubs**--*minumum* space that equals half of the shrub's mature size.
- What happens if you plant too close?
 - Compete for water, sun, and soil nutrients
 - Require more water, nutrients to thrive
 - You will usually lose one of them

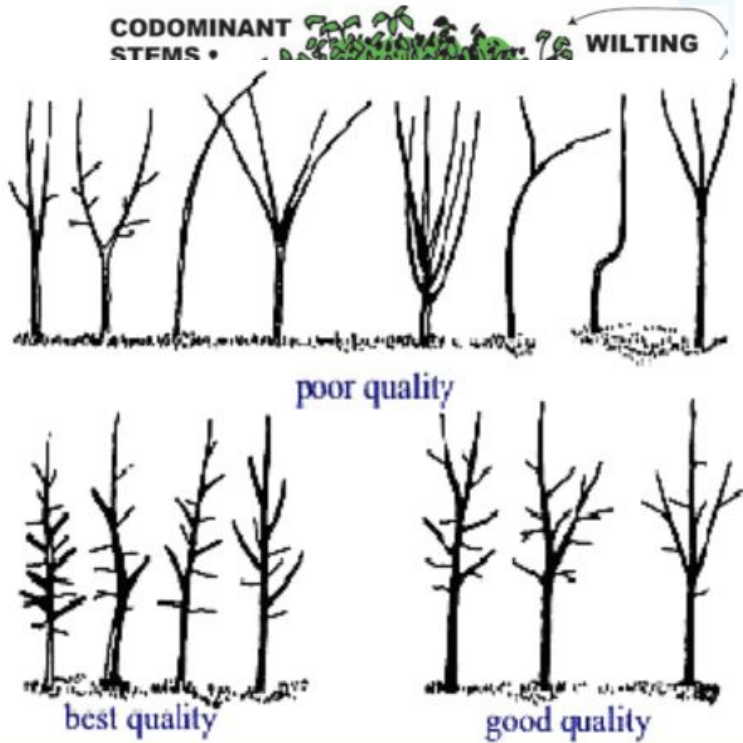


Common mistakes

- Putting plants in the wrong spot
- Planting too much, too close together
- Underestimating a plant's mature height/width
- Installing one type of plant in a row
- Planting a “bully”
- Picking problem-prone plants.



What to look for at the nursery



Branches- distributed radially around and vertically along the trunk, forming a generally symmetrical crown

- Inspect Trees and Shrubs for Quality and Health
 - Strong form-good structure
 - No uneven gaps or asymmetry
 - Single stem trees should have one main trunk
 - Evenly distributed, healthy foliage with uniform color and shape
 - No major damage from insects, leaf discoloration or spots
 - Healthy trunks with no dents or broken branches

How to buy a plant

Rootstock suckers permitted to grow-- should have been removed!

Lace-leaf maple tree grafted onto rootstock



- Healthy roots
 - Lots of roots, white or off white in color
 - AVOID Soft, brown or black non-woody roots
- Avoid girdled, circling, or kinked roots
- Grafted trees--no root stock suckers
- Solid, moist root ball

Planting a tree or shrub: How deep?

<https://www.youtube.com/watch?v=vwHlaNIQbMo>



How to plant a balled and burlapped tree

<https://www.youtube.com/watch?v=EnIjDKInO84>

<https://www.youtube.com/watch?v=ZijTjoDOid8>



PLANTING A BALLED AND BURLAPPED TREE

How to plant a containerized tree


<https://www.youtube.com/watch?v=Inbe0s6QJ3Y>

<https://www.youtube.com/watch?v=FC3uEZALMwY>




To stake or not to stake


- Staking trees is **UNDESIRABLE**, but sometimes necessary.
- Stake only if the root ball is unstable or the trunk is bending. Use wide nylon, canvas straps, or nylon stockings wrapped around one side of the trunk. The tree should not be tied tightly.
- The sooner a tree can stand alone, the sooner it will become strong.



If the **root ball is unstable**, use 1-3 stakes attached **LOW** on the trunk.

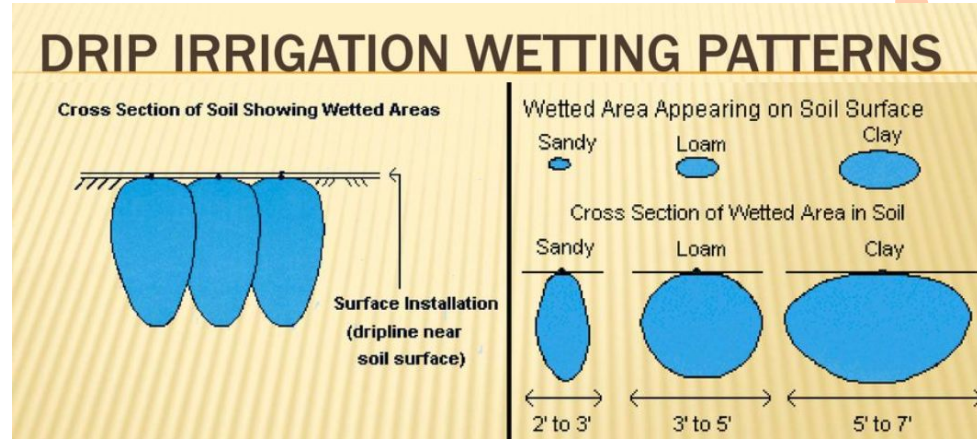


If the **trunk is bending**, use 1 stake attached **HIGHER** (at least 6 inches below the first set of branches).

 **Remove stakes after 1-2 years.**

Watering

- Irrigation: Automatic or manual
- Deep and slow is the way to go--encourages deep roots
- Soil should be moist from 10-12 inches deep for trees and shrubs
- How to tell?--Soil probe!!

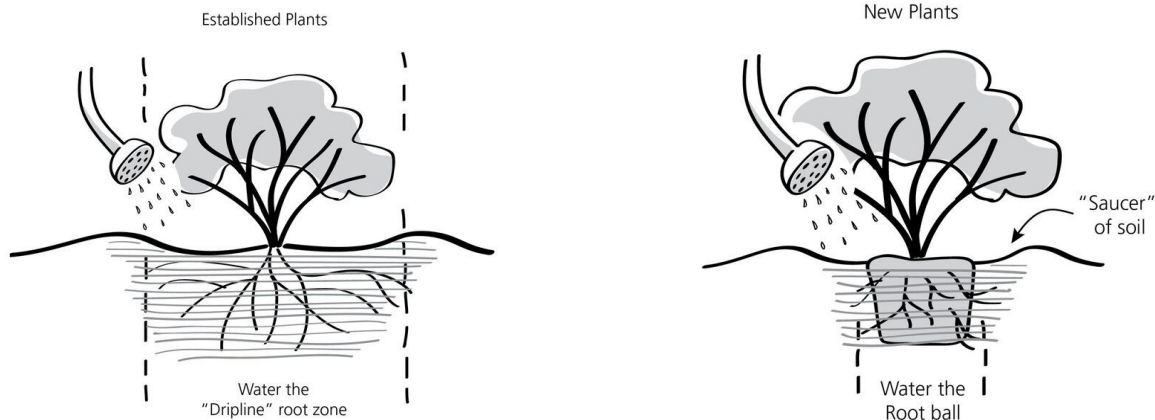


MULCH!!!

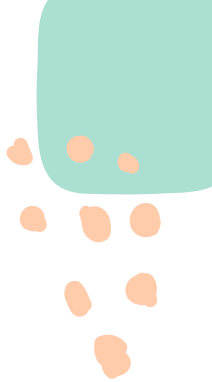


Drought tolerant does not mean “no water!”

- Drought-tolerant plants need 1 to 2 summers of regular, deep watering to make them drought-tolerant in the future
 - Foster deep root growth to withstand surface dry soil
- Most drought-tolerant plants will still need supplemental water during extended heat and drought--but less than most other plants.
- How to establish good roots for drought resistance



Words to the wise



- All required sites with well-drained soil
- All **trees and shrubs will need supplemental watering for the first year**, maybe two, until well-established
- **MULCH!**
- Flowering plants with full-sun/part shade light needs will flower better in full sun.
- Strategically placed trees can provide afternoon shade for Rhododendrons and Hydrangeas.
- If you live at higher elevations, or are in a “frost-pocket” microclimate, choose plants from zone 4-7.



Chitalpa

Chitalpa tashkentensis

- Small tree-15 ft (10 years), 20 ft. mature
- Flowers from mid-summer to early fall
- No messy fruit
- Two cultivars-Pink Dawn and Morning Cloud
- Needs a location with well-drained soil
- Prefers full sun, but can tolerate part-shade
- Drought tolerant once established
- Will flower better with some summer water



Vine Maple

Acer circinatum

- Native PNW
- Related to Japanese Maples
- Multi-stemmed, shrub-like
- Beautiful red/orange fall color
- Height (10 yrs.) 15 ft., mature 20 ft.
- Versatile--full sun to deep shade
- Best color in full sun--more upright growth.
- Shade, graceful horizontal growth.
- Drought tolerant once established



<https://images.greatplantpicks.org/acer-circinatum-01-gpp.jpg>

THREEFLOWER MAPLE

ROUGHBARK MAPLE

Acer triflorum

- Height: 20 ft. (10 yrs), 30 ft. mature
- Scaly bark- winter interest
- Fall Color: yellow, orange and/or scarlet (even in dappled shade)
- Creates dappled shade
- Requires well-drained soil
- Drought tolerant when established



PACIFIC SUNSET®

Acer 'Warrenred'

Height: (10 yr.) 20 ft, mature 30

Full sun

Gorgeous fall

Foliage--orange/yellow/reds

Great street tree

Drought tolerant when established



LAVALLE HAWTHORN

Crataegus × lavallei

Durable and beautiful

Height; (10 yr.) 15 ft., mature 30 ft.

White flower clusters in late spring

Full sun to light shade

Tolerates clay soils

Orange/red fruit that persist into winter

Glossy leaves remain on tree late into fall.

¼ inch thorns

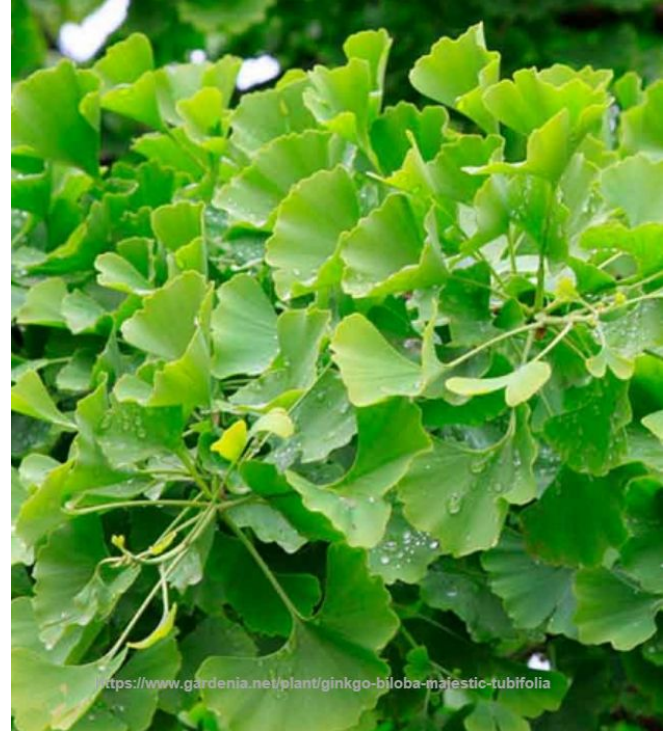
Bees and birds love it!

Completely drought tolerant until established



Ginkgo Biloba 'Tubifolia'

- Height: (10 yrs) 15 ft., mature 25 ft.
- Rolled fan-shaped leaves when young--flatten out with maturity
- Slow growing shrubby tree
- Male tree--no stinky fruit
- Luminescent golden yellow fall foliage
- Drought tolerant once established but do better with some summer irrigation



<https://www.gardenia.net/plant/ginkgo-biloba-majestic-tubifolia>

WEeping

WILLOWLEAF PEAR

Pyrus salicifolia 'Pendula'

- Plant Height (10-year): 10 ft., mature 18 ft.
- Full Sun, well-drained soil-will tolerate clay
- Weeping form with silver foliage
- Plant with other "silver" leaved plants like artemisia, with a contrast color
- Creamy-white flower, followed by green to brown pear-shaped fruits
- Can be pruned or allowed to grow free-formed

<https://landscapeplants.oregonstate.edu/plants/pyrus-salicifolia-pendula>



<https://www.greatplantpicks.org/search/plant-details/1262>

CHINESE FRINGE TREE

Chionanthus retusus

- Plant Height (10-year): 12 ft., mature 15 ft
- Fringy white flower clusters in late spring-early summer
- ½ inch purple fruit in fall on female tree
- Easy to grow
- Full sun or partial shade
- Slow to moderate growth rate
- Bees love it!



PERSIAN IRONWOOD

Parrotia persica

- Height (10-year): 15 ft., mature 40 ft.
- Full sun to dappled shade
- Tolerates clay, but does best in well-drained soil
- 4 season interest-
 - Winter--
 - Flowers--tiny, red, spider, in winter before the leaves, striking structure.
 - Bark--tan, olive, and grey exfoliating
 - Spring--
 - Foliage green with burgundy edges--turning green in summer
 - Fall--
 - Foliage bronze, red, orange, then yellow



GOLDENRAIN TREE

Koelreuteria paniculata 'Coral Sun'

- Plant Height (10-year): 10 ft., mature 20-30 ft.
- Full sun to dappled shade
- Caution: tree is toxic to humans and children--may be a danger for children and pets.
- Spectacular coral color in spring, then lime green all summer contrasting with coral branches

<https://landscapeplants.oregonstate.edu/plants/koelreuteria-paniculata>



So many more trees!

- [Arbutus menziesii](#) (the native madrone, or madrona, tree) or its relative, *Arbutus unedo*, the strawberry tree (from the Mediterranean).
- [Clerodendrum trichotomum](#) (harlequin glorybower): a showy shrub or tree with fragrant flowers, colorful berries and leaves scented like peanut butter.
- [Cupressus sempervirens](#) (Italian cypress): a fast-growing conifer that is shearable and very drought-tolerant.
- [Laurus nobilis](#) (sweet bay): a vigorous, evergreen shrub that can be easily pruned into a tree. Excellent in soup.
- [Lagerstroemia x fauriei](#) (crepe myrtle): has showy flowers, bark and fall color.

- [Cercis occidentalis](#) (western redbud): is a California native well suited to the PNW with pink flowers in spring.
- [Cotinus coggygria](#) (smoke bush): can be pruned into a shrub or tree and is noted for its fall colors.
- [Styphnolobium japonicum](#) (Japanese pagoda tree): a handsome shade tree with showy flowers in late summer.
- Quercus species (including [red oak](#), [scarlet oak](#), [silver-leaf oak](#), and particularly the native [garry oak](#)).
- Acer species: [Acer circinatum](#) (the native vine maple), [Acer triflorum](#), (rough bark maple), [Acer rubrum](#) (red maple), [Acer griseum](#) (paperbark maple).
- [Cornus mas](#) (cornelian cherry): early blooming with bright red fruit in autumn.
- [Liquidambar styraciflua](#) (sweet gum): popular street trees, tolerant of varying conditions.

(Abies concolor •N	White fir
<i>Abies koreana</i>	Korean fir
<i>Abies lasiocarpa</i> N	Subalpine fir
Acer glabrum •N	Rocky Mountain maple
<i>Acer grandidentatum</i> •N	Canyon maple
<i>Acer griseum</i>	Paperbark maple
<i>Acer tataricum</i> •	Tatarian maple
Amelanchier laevis (× <i>grandiflora</i>)	Apple serviceberry
<i>Betula occidentalis</i> •N	Water birch
Calocedrus decurrens •@	California incense cedar
<i>Catalpa</i> spp.	Catalpa
<i>Celtis reticulata</i>	Netleaf hackberry
<i>Cladrastis kentukea</i>	Yellowwood
<i>Cotinus coggygria</i>	Smoke tree

<i>Crataegus</i> spp. N	Hawthorn
<i>XCupressocyparis leylandii</i> •	Leyland cypress
<i>Fraxinus pennsylvanica</i>	Green ash
<i>Ginkgo biloba</i>	Ginkgo
<i>Gleditsia triacanthos</i>	Thornless honeylocust
<i>Gymnocladus dioica</i>	Kentucky coffee tree
<i>Juniperus occidentalis</i> N	Western juniper
<i>Juniperus scopulorum</i> N	Rocky Mountain juniper
Koelreuteria paniculata	Goldenrain tree
<i>Maackia amurensis</i>	Amur maackia
<i>Ostrya virginiana</i> •	Ironwood
<i>Phellodendron</i> spp.	Cork tree
<i>Picea omorika</i>	Serbian spruce
Picea pungens N	Colorado spruce

[*Pinus aristata*](#)

Bristlecone pine

Pinus cembra

[Swiss stone pine](#)

Pinus flexilis ●N

[Limber pine](#)

Pinus leucodermis

[Bosnian pine](#)

Pinus nigra

[Austrian pine](#)

Pinus ponderosa N

[Western yellow pine](#)

Ptelea trifoliata ●

[Hoptree](#)

Pyrus calleryana

[Callery pear](#)

Quercus coccinea

[Scarlet oak](#)

Quercus macrocarpa

[Bur oak](#)

Quercus robur

[English oak](#)

Quercus rubra

[Red oak](#)

Rhus typhina

[Staghorn sumac](#)

Sorbus aucuparia ●

[European mountain ash](#)

[*Styphnolobium japonicum*](#) ●

Japanese pagoda tree

(*Sophora japonica*)

Now moving on to
SHRUBS!



Grevillea fililoba

- Shrubs from Australia
- Genus has shrubs, groundcovers and trees
- Long lasting, fragrant flowers
- Various foliage--needle-like leaves to broad leaves
- Various size shrubs, from small to large
- Deer resistant
- Excellent local resource:
<https://xeraplants.com/genus/grevillea/>



Oregon State Landscape plants

Photos by Neil Bell OSU--a special "Thanks!" for permission to use them

Wild California Lilac

- Ceanothus

Excellent local resource:
<https://xeraplants.com/ceanothus/>



C. 'Blue Jeans'

Zone 8

**Oregon
Grape
Mahonia**



Photos by Neil Bell
OSU--a special
"Thanks!" for
permission to use
them

Manzanita

Arctostaphylos

Genus--

Great PNW
resource:
<https://xeraplants.com/?s=arctostaphylos>

Photos by Neil Bell OSU--a special "Thanks!" for permission to use them



Mediterranean herbs

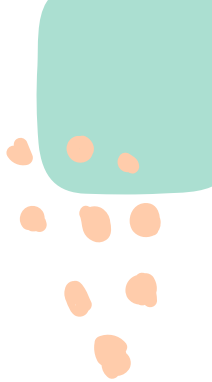
Oregano: *Origanum* spp.



O. 'Kent Beauty'

Zone 8

Photos by Neil Bell OSU--a
special "Thanks!" for
permission to use them



Lavender Cotton

Santolina

chamaecyparissus



Lavender cotton (*Santolina chamaecyparissus*) Zone 7

Chaste Tree
Vitex
agnus-castus



Photos by Neil Bell OSU--a
special "Thanks!" for
permission to use them

California fuchsia Genus *Epilobium*

More cultivars:

<https://xeraplants.com/genus/epilobium/>



Epilobium (Zauschneria) 'Silver Select'

Photos by Neil Bell OSU--a special "Thanks!" for permission to use them

Rockrose Cistus and Halimium spp.



Halimium lasianthum 'Sandling'

Zone 8

Photos by Neil Bell OSU--a special "Thanks!" for permission to use them

<i>Amelanchier alnifolia</i> ●N	Western serviceberry
<i>Artemisia</i> spp. N	Sagebrush/Wormwood
<i>Berberis koreana</i> ●	Korean barberry
<i>Berberis thunbergii</i> ●	Japanese barberry
<i>Caragana arborescens</i>	Siberian peashrub
<i>Caryopteris x clandonensis</i> ●@	Blue spirea
<i>Ceanothus velutinus</i> N	Snowbrush ceanothus
<i>Cercocarpus montanus</i> ●N	True mountain mahogany
<i>Chaenomeles</i> spp. ●@	Flowering quince
<i>Chamaebatiaria millefolium</i> N	Fernbush
<i>Cornus sericea</i> N	Redosier dogwood
<i>Cotoneaster apiculatus</i> @	Cranberry cotoneaster
<i>Cotoneaster lucidus</i> ●@	Hedge cotoneaster
<i>Daphne xburkwoodii</i> ●	Burkwood daphne

MORE SHRUBS

<i>Dasiphora fruticosa</i> N	Bush cinquefoil
<i>Diervilla sessilifolia</i> ●	Bush honeysuckle
<i>Ericameria (Chrysothamnus) nauseosus</i> N	Rabbitbrush
<i>Euonymus alatus</i>	Burning bush
<i>Forsythia</i> spp.	Forsythia
<i>Holodiscus discolor</i> ●N	Ocean spray
<i>Hypericum</i> spp. ●	Hypericum
<i>Juniperus</i> spp. N	Juniper
<i>Kerria japonica</i> ●	Japanese kerria
<i>Kolkwitzia amabilis</i> ●	Beauty bush
<i>Lonicera xylosteum</i> ●	Fly honeysuckle
<i>Ligustrum obtusifolium</i>	Border privet
<i>Ligustrum vulgare</i> ●	Common privet
<i>Mahonia aquifolium</i> ●N@	Oregon grape

<i>Paxistima myrsinites</i> ●N	Oregon boxwood
<i>Philadelphus lewisii</i> ●N	Wild mockorange
<i>Photinia pyrifolia</i> (<i>Aronia arbutifolia</i>)●	Red chokeberry
<i>Physocarpus capitatus</i> ●N	Western ninebark
<i>Physocarpus malvaceus</i> ●N	Mallow ninebark
<i>Picea abies</i> 'Nidiformis'	Bird's nest spruce
<i>Prunus laurocerasus</i> ●	Cherry laurel
<i>Pyracantha coccinea</i>	Firethorn
<i>Rhus trilobata</i> N	Three leaf sumac
<i>Ribes aureum</i> N	Golden currant
Ribes sanguineum ●N	Winter currant
<i>Rosa nutkana</i> ●N	Nootka rose
<i>Rosa rubrifolia</i> ●@	Redleaf rose
Rosa rugosa ●	Rugosa rose

MORE SHRUBS

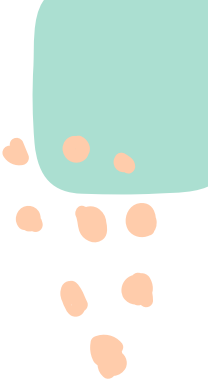
<i>Salix exigua</i> N	Coyote willow
<i>Spiraea betulifolia</i> ●N@	Birchleaf spirea
<i>Spiraea japonica</i>	Japanese spirea
<i>Spiraea nipponica</i>	Nippon spirea
<i>Spiraea thunbergii</i>	Thunberg spirea
<i>Spiraea</i> × <i>vanhouttei</i> ●	Vanhoutte spirea
<i>Symphoricarpos</i> spp. ●N@	Snowberry
<i>Syringa</i> spp. ●	Lilac
Syringa reticulata	Japanese tree lilac
<i>Taxus</i> spp. ●N	Yew
Viburnum × <i>burkwoodii</i> ●	Burkwood viburnum
<i>Viburnum</i> × <i>carlcephalum</i>	Fragrant snowball viburnum
<i>Viburnum lantana</i> ●	Wayfaring tree
<i>Yucca</i> spp.	Yucca

Searchable plant information

<https://public.wsu.edu/~lohr/wcl/shrubs/shrubs.html>

<https://www.greatplantpicks.org/search/advanced>


<https://xeraplants.com/plant-type/tree/>





Pop-quiz

(just kidding!)

- What is summer-dry/winter-wet?
 - What is waterwise landscaping
 - How do you choose a plant?
 - Site characteristics, planning, spacing
 - Common mistakes
 - What to look for at the nursery
 - How to plant a tree/shrub
 - “Establishing” your new plant
 - Irrigation
 - Tree Choices
 - Plant Choice
 - Searchable databases
- 
- 