

# Native Plants for a Changing Climate

Peggy Campbell

## Northwest Native Plants (Puget Sound Lowlands)

Wide diversity for the habitats here:

Wetland, bog, seep / Shoreline buffer / Woodland / Sandy gravel / Prairie

Sustainable beauty when matched to your site

- ✓ Water wise ..... ween off the watering after established (usually 2 years)
- ✓ Thrive in our soils \* .....no need to fertilize if you maintain mulch
- ✓ Generally disease and pest free ..... no need for pesticides
- ✓ Carefree ..... when planted in preferred sun, soil texture, soil moisture
- ✓ Sustainable..... keep soils covered in mulch (*not bark*)

## Seasonal impacts observed in our changing climate

	Tends to have:	Impact	Garden Impact
<b>El Nino years</b> (warmer ocean)	warmer & wetter WINTER	Less mountain snowfall	Potential watering restrictions
<b>La Nina years</b> (cooler ocean)	hotter and drier SUMMER	Drought conditions	Stressed plants Higher water use

## Match the right plant to Your Site

1. **Natural Light** -- notice difference between summer and winter

Full sun at least 6 hours of direct sunlight on a sunny day

Partial sun Dappled light or indirect light

Shade No direct sunlight

2. **Soil Texture** – use the “jar test” –

**NOTE: It is *not feasible to change* soil texture. You can, though, create healthier soil by adding organic matter.**

“Texture is related to soil porosity and directly impacts soil and plant health by affecting moisture and air holding capacity in soils.”

- Use the “jar test” to discover how much **clay**, **sand** or **silt** is in your garden’s soil.  
<https://hgic.clemson.edu/factsheet/soil-texture-analysis-the-jar-test/>
- The relative % of **clay**, **sand** or **silt** that identifies your soil’s texture, will determine whether it is:
  - Wet in Winter, Dry in Summer
  - Seasonally saturated or inundated
  - Sandy, well-draining (required drought tolerant plants)

3. **Select *only those* that match to your site**

King County Native Plant Guide ..... [www.kingcounty.gov](http://www.kingcounty.gov), “Native Plants”

Great Plant Picks ..... [www.greatplantpicks.org](http://www.greatplantpicks.org), “Pacific Northwest Natives”

Washington Native Plant Society ..... [www.wnps.org](http://www.wnps.org)

Saving Water Partnership (publications, info) ..... [www.savingwater.org](http://www.savingwater.org), “Lawn & Garden”

Garden Hotline..... [www.gardenhotline.org](http://www.gardenhotline.org), (206) 633-0224

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## Tips to Grow Healthy Plants in a Changing Climate

### Tip #1 – Build Healthy Soil: this is the key to a healthy garden in a changing climate

- ✓ Improves soil and plant health
- ✓ Allows rainfall to soak into the soil
- ✓ Improves soil drainage
- ✓ Reduces water use (and stressed plants) during the dry season

If your garden spot:	To Build Healthy Soil:
Has existing plants	Cover soil with mulch (refer to Tip #3 below)
Does not have existing plants	1. Dig 2 to 4 inches of compost into the upper 6 to 8 inches of the soil. 2. Cover soil with mulch (refer to Tip #3 below)

### Tip #2 – Start Plants Right

1. Water plants ahead of time
2. Find the plant's *root flare* (shrubs, trees)
3. Prepare the planting hole:
  - Wide, shallow, rough-sided hole – *keep root flare above ground*
  - Loosen and spread roots
  - Use native soil only
  - Mulch\*
4. Water deeply:
  - immediately
  - weekly during the 1<sup>st</sup> summer
  - as-needed until established (2 to 3 years)
  - maintain the mulch layer
  - monitor during prolonged drought

### Tip #3 – \*Cover Bare Soil

- ✓ **Mulch** (*not-yet-fully-decomposed organic matter*) – apply on top of soil
- ✓ **Best mulches for native plants** (proper depth)
  - woodchips (3- to 4-inch layer) – [www.chipdrop.com](http://www.chipdrop.com) (FREE)
  - leaves (2- to 3-inch layer)
- ✓ **Replenish the mulch** (check the depth)
  - During the rainy season (October – April)

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Trees & Shrubs		SUN	PARTIAL SUN	SHADE	SOIL MOISTURE	FEATURE
<i>Amelanchier alnifolia</i>	SERVICEBERRY	X	X		WW-DS	flower, berry
<i>Cornus sericea</i> (& hybrids)	REDOSIER DOGWOOD	X	X		ALL	stem color
<i>Garrya elliptica</i>	WAVY-LEAVED SILK TASSEL	X	X		Moist	evergreen; flower
<i>Gaultheria shallon</i>	SALAL	X	X	X	WW-DS; DT	evergreen
<i>Lonicera involucrata</i>	TWINBERRY		X	X	Moist to Wet	flower
<i>Mahonia aquifolium</i>	TALL OREGON GRAPE	X	X		WW-DS; DT	evergreen
<i>Mahonia nervosa</i>	LONG-LEAF OREGON GRAPE		X	X	DT	evergreen
<i>Myrica gale</i>	SWEET GALE	X			Moist to Wet	
<i>Philadelphus lewisii</i>	MOCK ORANGE	X			DT	fragrant
<i>Pinus contorta</i> (& hybrids)	SHORE PINE; LODGEPOLE PINE	X			DT	evergreen
<i>Rhododendron macrophyllum</i>	PACIFIC RHODODENDRON		X		DT	flower
<i>Ribes sanguineum</i>	FLOWERING CURRANT	X	X	X	DT	flower
<i>Rosa nutkana</i>	NUTKA ROSE	X	X		DT to Wet	flower
<i>Symphoricarpos albus</i>	SNOWBERRY	X	X		WW-DS; DT	Inedible white fruit
<i>Vaccinium ovatum</i>	EVERGREEN HUCKLEBERRY		X	X	DT	berry (purple)
<i>Vaccinium parviflorum</i>	RED HUCKLEBERRY (deciduous)		X	X	WW-DS *	berry (red)
Ferns & Groundcovers						
<i>Blechnum spicant</i>	DEER FERN	X	X	X	WW-DS; DT	evergreen
<i>Polystichum munitum</i>	SWORD FERN	X	X	X	WW-DS; DT	evergreen
<i>Arctostaphylos uva-ursi</i>	KINNIKINNICK or BEARBERRY	X			DT	evergreen
<i>Maianthemum dilatatum</i>	FALSE LILY-OF-THE-VALLEY		X	X	Moist	leaves, flowers
Perennials & Bulbs						
<i>Aquilegia formosa</i>	WESTERN COLUMBINE		X		WW-DS	flowers
<i>Armeria maritima</i>	THRIFT or SEA PINK	X			Well-drained	flowers
<i>Aruncus dioicus</i>	GOAT'S BEARD		X	X	Moist	flowers
<i>Camassaia</i>	CAMAS	X			WW-DS	(bulb)
<i>Carex obnupta</i>	SLOUGH SEDGE	X			Moist - Wet	leaves
<i>Sedum spathulifolium</i>	BROADLEAF STONECROP	X			DT	succulent
<i>Maianthemum (Smilacina) racemosa; M. stellata</i>	FALSE SOLOMON'S SEAL STAR-FLOWERED SOLOMON'S SEAL		X	X	WW-DS	flower
<i>Tellima grandiflora</i>	FRINGECUP		X	X	WW-DS; M	leaves, flowers
<i>Trillium ovatum</i>	WESTERN TRILLIUM		X	X	WW-DS	flower

**Soil Moisture Key:**

**DT** = Drought Tolerant

**M** = Moist

**WW-DS** = Wet Winter-Dry Summer

**\*** = requires decaying wood

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[Here are my go-to resources](#) (listed in the order that I tend to use them)

***Grow Your Own Native Landscape***, Washington State University (WSU) Extension, MISC0273

- Reliably great information, especially helpful to select plants suitable to a site's soil moisture.

***Plants of the Pacific Northwest Coast***, Pojar & McKinnon, Lone Pine Press

- Excellent images, descriptions. Includes information on how Native Americans make use of plant parts.

***Rain Garden Handbook of Western Washington***, WSU Extension ([link](#) to Department of Ecology's FREE, downloadable PDF)

- See the "Plant List" appendix which categorizes plants according to a site's soil moisture.
- Look for the updated edition in early 2024

## [Specialty references:](#)

***Encyclopedia of NW Native Plants for Gardens and Landscapes***, Robson, Richter, & Filbert, Timber Press

- Great photos, detailed description and gardening information.

***Indicator Plants of Coastal British Columbia***, Klinka, Krajina, Ceska & Scagel, UBC Press

- Out of print, yet readily available through used book sources.
- Once you know your site's soil moisture conditions, match that up to the category shown in this excellent reference. Then you will find entire lists of plants suited to the same conditions.

***Landscaping for Wildlife***, Russell Link, University of Washington Press

- See plant lists in the back for lists of native plants that attract wildlife.