

Gardening in the Wet and the Dry

By Kail Robson, Ph.D

Xeriscaping with Drought Tolerant Natives

Xeriscaping is the creation and maintenance of a water-conserving, environmentally sound landscape. It is a sustainable landscape – requiring minimal labor, water, fertilizer and pesticides. Although xeriscaping is usually associated with dry, southwest climates, it is equally important in the Northwest, where summer months are dry and droughts do occur. Earlier this year, our mountain snow pack was 40-50% of normal, causing record low flows on many rivers. Water is a valuable resource and we should all do our part to conserve it. Many of our native plants are quite drought-tolerant as well as beautiful.

In this part of the world we usually get lots of rain in the late fall, winter, and early spring, when plants are dormant and require little water. In the summer and early fall we typically have about two dry months and many of our native species are well adapted to these conditions. If you have a sunny, dry place in your yard, planting drought-tolerant species is a far better strategy than using plants with high water needs.

With ever more crowded conditions in the Northwest, clean water is becoming scarce and the need to conserve water supplies is urgent. The impending extinction of salmon and other aquatic species means we can no longer waste water to maintain a lawn. Summer water rationing is common in many parts of the Pacific Northwest, and will probably become more restrictive this summer. Keep this in mind, gardeners, and plant your yards accordingly – choose the right plants for the soils and climate.

Species tolerant of dry shade under large trees such as Douglas fir (*Pseudotsuga menziesii*) include sword fern (*Polystichum munitum*), salal (*Gaultheria shallon*), Cascade Oregon grape (*Mahonia/Berberis nervosa*), and vine maple (*Acer circinaum*).

Many conifers such as ponderosa pine (*Pinus ponderosa*) and incense cedar (*Calocedrus decurrens*) prefer sunny dry sites. Madrone (*Arbutus menziesii*, beautiful, but difficult), oceanspray (*Holodiscus discolor*), Oregon myrtle or California laurel (*Umbellularia californica*) are also tolerant of summer drought. Good old snowberry (*Symphoricarpos albus*) is tolerant of dry to fairly wet conditions, and sun to part shade.

Kinnikinnick (*Arctostaphylos uva-ursi*) is a great plant for erosion control on dry, sunny banks but is a bit slow to establish. Other species of *Arctostaphylos* are beautiful and drought-tolerant, but more difficult to grow. Smooth sumac (*Rhus glabra*) can take dry, sunny conditions and provide spectacular fall color, but will develop many suckers if the roots are frequently disturbed. Creeping Oregon grape (*Mahonia/Berberis repens*), tall Oregon grape (*M.B. aquifolium*), mock-orange (*Philadelphus lewisii*), baldhip rose (*Rosa gymnocarpa*) and Western serviceberry (*Amelanchier alnifolia*) are also excellent choices for dry, mostly sunny areas. There are many drought-tolerant flowering perennials that will do well in a dry meadow or rock garden, including species of penstemon, stonecrop (*Sedum* spp.), blue flax (*Linum perenne*) and yarrow (*Achillea millefolium*).

When planning your landscape or garden area, be sure to amend your soil. Amending with organic material improves soil aeration, soil health, and water-holding capacity. Improved soil helps plants develop deep root systems to withstand drought stress. Mulching will also aid in that it minimizes moisture evaporation, keeps the soil cool, reduces weeds, and slows down water to prevent runoff. Mulching with compost also adds a great source of slow release nutrients to the soil. Mulch can be organic, such as bark, straw, grass clippings, pine needles, or compost. Mulch may also include inorganic materials such as pea gravel. Big rocks will also hold moisture underneath for long periods.

Native Plants for Wet Areas

Most plants other than wetlands species, are unable to tolerate saturated soils for any length of time. This is because the amount of oxygen in soggy soils is so low that the plant's roots literally drown and become unable to function. Although green plants do produce molecular oxygen as a byproduct of photosynthesis, they take some of it back during respiration – they must respire, just as we must. However, wet soils are not an uncommon feature in many areas of the Pacific Northwest and there are many native plants that are quite able to tolerate such conditions.

Trees that can handle wet soil include Oregon ash (*Fraxinus latifolia*), Western red cedar (*Thuja plicata*), good, old red alder (*Alnus rubra*, a nitrogen fixer) and black cottonwood (*Populus trichocarpa*/*P. balsamifera*), as well as Sitka spruce (*Picea sitchensis*), though it may have pest problems. Shore pine (*Pinus contorta* var. *contorta*), Pacific crabapple (*Malus/Pyrus fusca*), species of willow, especially Pacific willow (*Salix lasiandra*) and Sitka willow (*S. sitchensis*) are also good choices, but don't plant cottonwoods or willows near sewer lines or drain fields because roots can cause damage.

For sunny wet areas with shallow water there are, of course, emergent plants such as the aggressive cattails (*Typha latifolia*) and many species of rushes and sedges. Shrubs tolerant of similar conditions include Western spirea or hardhack (*Spiraea douglasii*), Nootka rose (*Rosa nutkana*), clustered wild rose (*Rosa pisocarpa*), salmonberry (*Rubus spectabilis*), and red twig dogwood (*Cornus sericea*/*C. stolonifera*). Perennials include yellow monkey flower (*Mimulus guttatus*).

For boggy, shady sites try under-utilized species such as skunk cabbage (*Lysichiton americanum*), black twinberry (*Lonicera involucrata*), devil's club (*Oplopanax horridus*), yellow stream violets (*Viola glabella*), Pacific bleeding-heart (*Dicentra formosa*), and sylvan goatsbeard (*Aruncus sylvestris*). Many native ferns will do well, including lady fern (*Athyrium filix-femina*) and Northern maidenhair (*Adiantum pedatum*/*A. aleuticum*). For the gardener who finds fussier species worth trying, there are plants such as Labrador tea (*Ledum groenlandicum*).

This is just a sample. There are many more you can read about in the following references:

- Editors of Sunset. 1988 Sunset Western Garden Book. Lane Publishing Co., Menlo Park, CA.
- Leigh, M. 1995 *Grow Your Own Native Landscape*. Wash. St. Univ. Cooperative Extension, Thurston Co.
- McNeilan, Jan. *The Pacific Northwest Gardener's Book of Lists*. Dallas, TX, Taylor Publishing Co., 1997.
- Pojar, Jim, MacKinnon, Andy eds. *Plants of the Pacific Northwest Coast*. Vancouver, B.C., Lone Pine Publishing, 1994.
- Your Yard and Water Quality. WSU Agricultural Bulletin EB1744.

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