



GARDENING WITH OREGON NATIVE PLANTS WEST OF THE CASCADES



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GARDENING WITH OREGON NATIVE PLANTS WEST OF THE CASCADES

By Linda R. McMahan

This publication provides an introduction and guide for those who are interested in Pacific Northwest native plants and would like to incorporate natives into their home gardens. Included are:

- Basic information about selection, establishment, and care
- A list of recommended Pacific Northwest native plants; the plant list focuses on plants that are relatively easy to acquire, establish, and grow. Exceptions or special requirements are noted.
- A list of other resources

A wide variety of native plants, from trees to flowering shrubs, herbaceous perennials, ferns, annuals, and groundcovers, are available for home gardens. In this publication, “native plants” are considered to be those found naturally at the time of European settlement (Cullina 2002) in western Oregon, from the Cascade Mountains to the coast.

Some native plants have natural ranges that extend south into California or north to Washington and Canada. A very few, e.g., yarrow (*Achillea millefolium*), have ranges that extend across the U.S. or even to Europe.

Although this publication provides some basic plant choices, the “Resources” section includes many outstanding references, including Kruckeberg (1996), Pettinger and Costanzo (2002), and Cullina (2000, 2002). These books provide specific information about appropriate garden conditions and care for each kind of plant.

More experienced native plant gardeners might wish to seek additional information in other books and references available from



libraries or booksellers, as well as websites. To see photos of regional gardens featuring native plants, refer to Johnson (1998).

BENEFITS OF GROWING NATIVE PLANTS

Pacific Northwest native plants grow under a wide range of gardening conditions. Some are good accent plants; others are groundcovers. Many native plants tolerate summer drought (Kruckeberg 1996, Bell et al. 2001, and Pettinger and Costanzo 2002). All are adapted to local garden soils in their places of origin (Pettinger and Costanzo 2002).

Adapted to local soils and weather

Native plants have grown in our region for thousands of years. They are adapted to our regional climate—wet winters and dry summers (Kruckeberg 1996). However, most native plants benefit from regular irrigation, especially during establishment. Keep in mind that some native

plants are from moist woodland or wetland habitats where drought tolerance has not developed.

Some native plants are well adapted to the soils often found in gardens west of the Cascades (Kruckeberg 1996). Do not assume, however, that all Pacific Northwest soils are alike, even in nature. Furthermore, garden soil often is not “native” soil, since it may have been altered during construction and by gardening (Pettinger and Costanzo 2002).

In short, garden soil types and climates vary greatly, so a particular native plant may or may not be appropriate for the conditions or microclimates in your garden. As is the case in gardening in general, choosing the right plant for the right place is very important for success.

Wildlife value

Native plants provide habitat for birds, small animals, amphibians, reptiles, and insects. This habitat is important for feeding, reproduction, and protection from the sun, wind, and predators.

Flowering shrubs, trees, and herbaceous plants provide nectar for many types of insects and for hummingbirds. Seeds and berries nurture birds and other wildlife. Shrubs and trees provide nesting sites for birds, squirrels, and other creatures. Other plants serve as hosts (food sources) for the caterpillar stages of native butterflies, or as nectar sources for adult butterflies or other insects. For more information, refer to the plant list and consult the references listed



under “Gardening for Wildlife” and “Butterfly Host Plants” in “Resources.”

Noninvasive in wild habitats

Finally, Pacific Northwest native plants are already established in balanced, local ecosystems, so they have little or no potential to become invasive pests in our wild and natural areas.

However, some natives can be aggressive in garden settings. Some native plants spread underground, such as Oregon grape (*Berberis aquifolium*), red-twig dogwood (*Cornus sericea*), or wild bleeding heart (*Dicentra formosa*). Others readily self seed, e.g., California poppy (*Eschscholzia californica*) and Douglas aster (*Aster subspicatus*). Keep these characteristics in mind when planting these species.

PLANT SELECTION

Selecting native plants for your home landscape is essentially the same process you would use for selecting any garden plant. Matching your desired plant list with the conditions already existing or easily created in your own garden will help ensure success (Pettinger and Costanzo 2002).

1. Determine the kinds of plants you are looking for. Consider your wishes and needs for trees, shrubs, herbaceous perennials, and groundcovers. List your favorite garden colors. Decide whether you want deciduous or evergreen trees and shrubs. Consider whether you are creating a new garden, such as a woodland garden, or adding native plants to an established garden. If one of your goals is to attract wildlife, choose plants to support this goal. Consider whether drought tolerance is important.
2. Examine your garden conditions. Determine whether your site is sunny, has part sun or shade, or is shady. Check the condition of the soil. Within your garden, you may have many different kinds of conditions; try to match your desired plants to individual places in your landscape.

3. Determine appropriate plants. Look through the list of plants in this publication to find those that might suit your purposes. To learn more about individual plants or to find additional choices, use the references and websites listed under “Resources.” Make sure each plant’s requirements match your garden conditions.



Find pictures of the plants to help you understand how they fit into your garden preferences. An excellent source of photographs for most of the trees and shrubs listed in this publication is a website developed for horticulture students at Oregon State University (<http://oregonstate.edu/dept/ldplants>). Pojar and Mackinnon (1994) and Brenzel (2001) are excellent references with photographs.

Plant breeders have developed cultivars (varieties) of many Pacific Northwest native plants. Cultivars offer specific plant characteristics, such as flower color or plant size. A note in the plant descriptions will identify species for which cultivars might be available. However, new cultivars continue to be developed, so the notes will not be complete. If you want specific cultivars or varied color forms, consult the references.

In some cases, species native to Oregon are widespread in other areas as well. Different forms of these species are native in different areas, so a particular form might not be native to Oregon. For example, kinnikinnick (*Arctostaphylos uva-ursi*) is native to many regions of the United States. Other widespread species include red-twig dogwood (*Cornus sericea*), Oregon sunshine (*Eriophyllum lanatum*), Douglas-fir (*Pseudotsuga menziesii*), and ponderosa pine (*Pinus ponderosa*).

If you wish to use local forms, you will need to know the origin of cultivars or plants you choose. Plant sellers often have this information. In the case of ponderosa pine, it is particularly important to use locally adapted plants, such as the Willamette Valley form. These

forms will perform better in the wetter soils found west of the Cascade Mountains than will forms native to the east side.

4. Look for sources. Many nurseries stock native plants. Once you know what plants you are looking for, make a list and carry it with you when you visit nurseries. Some retail nurseries have native plant sections; others intermix native plants with those of other origins. A few nurseries specialize in native plants.

Find sources for native plants through directories provided by the Oregon Association of Nurseries (listed in “Finding Plants” in “Resources,” through web searches, or by contacting your local OSU Extension office for recommendations).

You may wish to propagate your own plants. Many native plants can be propagated from either seeds or cuttings. For more information, consult resources such as Rose et al. (1998) and Cullina (2000, 2002).

ESTABLISHMENT AND CARE

Gardeners sometimes make the mistake of thinking that native plants can fend for themselves in the garden; this is not true (Kruckeberg 1996). Once these plants are part of a tended garden, they are no longer in a natural setting and require some care to perform their best. Establishing native plants in a garden requires

the same care as establishing other garden plants.

1. Good soil promotes plant growth. Soil containing adequate organic matter and nutrients will promote better growth of all garden plants. Soil qualities can change dramatically, even within short distances, from clay-like, to wet soils, to sandy types (USDA Soil Surveys for Oregon). If your soil has not been improved, particularly if you are working on a new construction site, add organic matter (Pettinger and Costanzo 2002, Bell et al. 2003). If your soil is clay-like or sandy, working 1 to 4 inches of organic matter into the soil will increase soil fertility (Bell et al. 2003).
2. Water plants during establishment. Even native plants require water to become established. A good guideline is to water the natives at the same time as the rest of your plants for the first year. After the plants are established, water perhaps once or twice a month. It may take a year for perennials and 2 to 3 (or more) years for shrubs and trees to become established in your garden (Kruckeberg 1996).
3. Be sparing with fertilizer. The amount of fertilizer you supply for other perennials and woody plants may be too much for native plants. For most native plants, fertilizer is not needed after the first year (Kruckeberg 1996). If fertilizer is needed, Cullina (2002)



recommends using organic fertilizers such as composted manure and bone meal.

4. Be patient. Some native plants take longer to establish than more traditional garden plants, as they have not been bred for garden conditions (Pettinger and Costanzo 2002).
5. Woodland plants may require rich, moist soil. Plants that naturally grow in woodlands, especially in the foothills or mountains of the Coast Range or Cascade Mountains, may require moist soil with high organic matter content. An example is *Heuchera micrantha*, a kind of alumroot. The popular variety known as 'Palace Purple,' for example, does best in moist, rich, well-drained soil. This is also true of native trillium (*Trillium ovatum*).
6. Native alpine plants from mountain areas or plants from coastal areas may need special garden conditions. Native plants from mountainous or seashore regions often require good drainage to survive in a garden (Kruckeberg 1996). Examples are the stonecrops (*Sedum* sp.) and golden iris (*Iris innominata*).

To increase soil drainage, use sandy or rocky soil, or add pumice. You might have more success with these plants by constructing a rock garden, growing them in containers with drainage holes, or using raised beds. If you are interested in growing native alpine plants, many excellent resources on their culture and care are available. See, for example, Foster (1968) under "Rock Gardening" in "Resources."

7. Wetland plants need special conditions. Many wetland plants need wet soil, such as a water garden, to survive in cultivation. Others, especially those that grow in seasonal wetlands, such as camas (*Camassia* sp.), yellow monkeyflower (*Mimulus guttatus*), and flowering crabapple (*Malus fusca*), can grow under a wide variety of garden conditions, so long as they do not dry out during the winter and spring.

PLANT COMBINATIONS

The plant list on pages 8–29 contains information about some of the native plants appropriate for home gardens and landscapes. This list contains plants that are relatively easy to grow and available locally. Review the comments for problem solvers of various types. Wildlife value, when known, is indicated. Following are a few possible combinations suitable for the novice gardener.

Woodland garden

A shady spot can be enhanced with one or more vine maples, an early-flowering large shrub such as Indian plum, six to nine sword ferns, a tall summer perennial such as goat's beard, some self-seeding fringe-cup, a swath of Pacific bleeding heart, a few trillium, and a groundcover of native violets.

Sunny native mixed border

Mix brightly flowering shrubs such as blue-blossom, red flowering currant, oceanspray, and mock orange, and add more color with native iris, blue-eyed grass, camas bulbs, and Oregon sunshine. Use a groundcover of wild strawberry or kinnikinnick.

Butterfly garden

Provide both nectar and host plants by growing a sunny area featuring mock orange, western azalea, and Nootka rose under a bitter cherry tree. For added color, try Cascade penstemon, stream violet, Douglas aster, goldenrod, and a groundcover of coastal strawberry.

Streamside landscape

Plant some trees such as alder or western crabapple and some large shrubs such as red-twig dogwood. Complement them with Douglas spirea, sword fern, inside-out flower, and native violets and iris.

RESOURCES

General information and plant identification

Elias, T.S. 1980. *Trees of North America* (Times Mirror Magazines, Inc., New York). 948 pp. ISBN 0-442-23862-2.

Gard, B.J. 2003. *Wetland plants of Oregon and Washington* (Lone Pine Publishing, Redland, WA). 240 pp. ISBN 1-551-5-060-9.

Hightshoe, G.L. 1988. *Native Trees, Shrubs, and Vines for Urban and Rural America* (John Wiley & Sons, Inc., New York). 819 pp. ISBN 0-471-28879-9.

Hitchcock, C.L. and A. Cronquist. 1973. *Flora of the Pacific Northwest* (University of Washington Press, Seattle). 730 pp. ISBN 0-295-95273-3.

*Jensen, E.C. and C.R. Ross. 2005. *Trees to Know in Oregon*. EC 1450 (Oregon State University Extension Service, Corvallis). 152 pp. ISBN 1-931979-04-09.

Lyons, C.P. 1999. *Trees and Shrubs of Washington* (Lone Pine Publishing, Edmonton, Alberta, Canada). 159 pp. ISBN 1-55105-094-3.

Pojar, J. and A. Mackinnon, eds. 1994. *Plants of the Pacific Northwest Coast* (British Columbia Ministry of Forests and Lone Star Publishing, Redmond, WA). 527 pp. ISBN 1-55105-040-4.

Vitt, D.H., J.E. Marsh, and R.R. Bovey. 1998. *Mosses, Lichens and Ferns of Northwest North America* (Lone Pine Publishing, Edmonton, Alberta, Canada). 196 pp. ISBN 0-295-96666-1.

***OSU Extension publications.** Many OSU Extension Service publications may be viewed or downloaded from the Web at <http://extension.oregonstate.edu>. Copies also are available from OSU Extension and Experiment Station Communications. For prices and ordering information, visit our online catalog or contact us by fax (541-737-0817), e-mail (puborders@oregonstate.edu), or phone (541-737-2513).

Gardening with native plants

- Brenzel, K.N., ed. 2001. *Sunset Western Gardening Book* (7th ed., Sunset Publishing Corporation, Menlo Park, CA). 768 pp. ISBN 0-376-03874-8.
- Cullina, W. 2002. *Native Trees, Shrubs, and Vines* (Houghton Mifflin Co., Boston). 354 pp. ISBN 0-618-09858-5.
- Cullina, W. 2000. *Guide to Growing and Propagating Wildflowers in the United States and Canada* (Houghton Mifflin Co., Boston). 322 pp. ISBN 0-395-96609-4.
- Johnson, L. 1998. *Grow Wild!* (Fulcrum Publishing, Golden, CO) 154 pp. ISBN 1-55591-396-2.
- Kruckeberg, A.R. 1996. *Landscaping with Native Plants of the Pacific Northwest*, 2nd ed. (University of Washington Press, Seattle). 282 pp. ISBN 0-295-96853-2.
- Pettinger, A. and B. Costanzo. 2002. *Native Plants in the Coastal Garden: A Guide for Gardeners in British Columbia and the Pacific Northwest*, rev. ed. (Whitecap Books, Vancouver, BC). 232 pp. ISBN 1-55285-331-4.

Gardening for wildlife

- *Cates, D., J. Olson, and N. Allen. 2002. *Attract Reptiles and Amphibians to Your Yard*. EC 1542 (Oregon State University Extension Service, Corvallis). 12 pp.
- *Lamb, S. and N. Allen. 2002. *Create a Garden Pond for Wildlife*, EC 1548 (Oregon State University Extension Service, Corvallis). 8 pp.
- *Lamb, S., S. Chambers, and N. Allen. 2002. *Create a Butterfly Garden*, EC 1549 (Oregon State University Extension Service, Corvallis). 8 pp.
- Link, R. 1999. *Landscaping for Wildlife in the Pacific Northwest* (Washington Department of Fish and Wildlife, University of Washington Press, Seattle). 320 pp. ISBN 0-295-97820-1.
- *Olsen, J. and N. Allen. 2002. *Attract Hummingbirds to Your Garden*, EC 1541 (Oregon State University Extension Service, Corvallis). 8 pp.

Oregon Department of Fish and Wildlife. 2001. *Naturescaping: A Landscape Partnership with Nature* (Oregon Department of Fish and Wildlife, Portland, OR). 204 pp. ISBN 0-9635088-5-7.

Rock gardening

Foster, H.L. 1968. *Rock Gardening* (Timber Press, Portland, OR). 466 pp. ISBN 0-917304-29-2.

Propagation

Rose, R., C.E.C. Chachulski, and D.L. Haase. 1998. *Propagation of Pacific Northwest Native Plants* (Oregon State University Press, Corvallis, OR). 256 pp. ISBN 0-87071-428-7.

Butterfly host plants

- Neill, W. 2001. *The Guide to Butterflies of Oregon and Washington* (Westcliffe Publishers, Englewood, CO). 160 pp. ISBN 1-56579-392-7.
- Pyle, R.M. 2002. *The Butterflies of Cascadia* (Seattle Audubon Society, Seattle, WA). 420 pp. ISBN 0-914516-13-2.

Water-efficient gardening

*Bell, N., A.M. VanderZanden, and L. McMahan. 2001. *Water-efficient Landscape Plants*, EC 1546 (Oregon State University Extension Service, Corvallis). 40 pp.

Soil and soil amendments

- *Bell, N., D.M. Sullivan, L.J. Brewer, and J. Hart. 2003. *Improving Garden Soils with Organic Matter*, EC 1561 (Oregon State University Extension Service, Corvallis). 16 pp.
- U.S. Department of Agriculture and Soil Conservation Service. Soil Survey series by county in Oregon. Available in libraries, some available online through county-based Soil and Water Conservation Districts.

Finding plants

Oregon Association of Nurseries. *Directory & Buyers Guide*, updated annually. Offices in Wilsonville, OR. Directory is available on the web at <http://www.nurseryguide.com>

Web sources

Oregon State University Department of Horticulture. Landscape Plants: Images, Identification, and Information at <http://oregonstate.edu/dept/ldplants/>

Washington State University Cooperative Extension. Information on Gardening in Western Washington at <http://gardening.wsu.edu/nwnative/>

King County Washington, Department of Resources and Parks. Yard and Garden Topics. <http://dnr.metrokc.gov/topics/yard-and-garden/>

Elizabeth C. Miller Horticulture Library, Center for Urban Horticulture, University of Washington. http://depts.washington.edu/hortlib/resources/dir_hort_websites.shtml

City of Portland, Oregon. Website on natives, with plant information and sources listed. <http://www.parks.ci.portland.or.us/TreesPlants/NativePlants/NativePlants.htm>

Native Plant Society of Oregon. How to contact native plant enthusiasts and learn more about native plants. <http://www.npsoregon.org/>

RECOMMENDED NATIVE PLANTS FOR HOME GARDENS IN WESTERN OREGON

NOTES

- Common names are those most used in Kruckeberg (1996), Link (1999), Pojar and Mackinnon (1994), and ODFW *Naturescaping* (2001).
- Scientific names and authors courtesy of Scott Sundberg, Oregon Flora Project, Department of Botany and Plant Pathology, OSU (<http://www.oregonflora.org/OFP>)
- Description, characteristics, and comments from Elias (1980), Kruckeberg (1996), Pojar and Mackinnon (1994), and Cullina (2000, 2002). Size categories for trees (tall to small) according to Elias; categories for shrubs (large to very small) according to Hightshoe (1988) scale.
- Drought tolerance assigned according to Link (1999), Kruckeberg (1996), Bell et al. (2001), and Cullina (2000, 2002).



= Drought-tolerant

- Light requirements assigned according to Link (1999), Kruckeberg (1996), and Cullina (2000, 2002).



= Sun



= Part shade/sun



= Shade

- Wildlife value assigned according to Link (1999), Kruckeberg (1996), ODFW *Naturescaping* (2001), Cates et al. (2002), Lamb and Allen (2002), Lamb et al. (2002), Olsen and Allen (2002), Neill (2001), and Pyle (2002).



Food source for native butterfly caterpillars



Nectar source for butterflies



Food source, shelter, or nesting sites for birds



Nectar source for hummingbirds



Shelter for native amphibians or reptiles



Food source for native wildlife or rodents



Among species considered to be the most valuable wildlife plants by ODFW *Naturescaping* (2001) reference



Recommended for wildlife meadow garden by ODFW *Naturescaping* (2001) reference

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Published October 2005. Reprinted March 2008.