

NATIVE HERBACEOUS PERENNIALS OF THE PACIFIC NORTHWEST WORTHY OF COMMERCIAL PRODUCTION

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An estimated 3,000 native herbaceous perennial species grow in the Pacific Northwest, from Oregon into British Columbia. They grow from sea level to alpine peaks. Among them is a great diversity of form, size, color, habitat, and adaptability.

This presentation will not include plants growing at higher elevations, nor the grasses (Poaceae or Graminae), sedges (Cyperaceae), rushes (Juncaceae), the many families of water plants, nor some of the lower plant families, such as club-mosses (Lycopodiaceae), and selaginella (Selaginellaceae). But even without them, the number of Northwest native herbaceous perennials is enormous, and the potential for their use is substantial.

Relatively little use is currently made of these plants. Competition of plants from other parts of the world, especially from Eastern North America, Europe, China, and Japan, and traditional use habits are among reasons for the tardy recognition of Northwest natives. Limited interest has delayed much needed selection, breeding, and propagation of superior clones and hybrids.

Most interest in commercial production of native materials has been for the woody species. Few nursery propagation and production practices are developed for Northwest herbaceous perennials. Seeding is the best known and mostly widely practiced of propagation techniques, as discussed by a number of authors (1, 2, 4, 5, 7).

Vegetative propagation will become more important with selection of improved clones, cultivars, and hybrids. Research, experience, and information is limited on propagation of Northwest herbaceous perennials by cuttings, tissue culture, grafting, and other vegetative techniques. Division is a more common method. Few have written on vegetative propagation of these perennials (1, 5, 6, 7).

Following is a listing of a few Northwest native herbaceous perennials which merit consideration for commercial production. The multitude of species and varieties in nature suggests the possibilities to be far greater. Careful selection of better performing clones is suggested for most species. Nomenclature is according to Hitchcock and Cronquist (3), with family in parenthesis.

Anemone deltoidea Hook., western white anemone (Ranunculaceae). A nice ground-cover for moist woodlands; good spring bloom of white flowers.

Aquilegia formosa Fisch., red columbine (Ranunculaceae). An adaptable red flowering columbine, unique in form; blooms best in sun with good moisture, in partial shade in warmer areas; readily self-sows and crosses with other species.

Aruncus sylvestris Kostel., = *A. dioicus* (Walt.) Fern., sylvan goatsbeard (Rosaceae).

Attractive foliage and billowy floral plumes, 3 to 7 ft tall in bloom; for moist woodland or shade garden; native range extends beyond Northwest, across North America, and into Europe.

Dicentra formosa (Andr.) Walp., Pacific bleedingheart (Fumariaceae). A 12 to 18 in. high groundcover or border plant for moist shaded areas; a vigorous, attractive plant with finely cut foliage and pink to purple, or bluish lavender to white, flowers.

Disporum smithii (Hook.) Piper, fairy lantern (Liliaceae). A 1½ to 2 ft high groundcover or border plant for shaded areas, best in moist soil with added organic matter; white hanging flowers in spring, red fruits in fall.

Erigeron speciosus (Lindl.) DC., showy fleabane (Compositae). Blue to bluish lavender flowers at top of clustered 10 to 30 in. stems during several weeks in late spring and summer; good foliage, easy to grow in full sun to light shade, not invasive.

Eriophyllum lanatum (Pursh) Forbes, woolly sunflower (Compositae). Dense yellow flowers, May to August, gray tomentose foliage, 4 in. to 2 ft according to variety; best in sun, well-drained soil.

Fragaria chiloensis (L.) Duchesne, coastal strawberry (Rosaceae). Evergreen maritime groundcover only a few inches high, white flowers in spring, handsome foliage; for sunny or partially shaded moist areas.

Gallium boreale L., northern bedstraw (Rubiaceae). Showy panicles of fragrant white flowers in late spring, leafy plant 10 to 30 in. tall; sun to light shade with ample moisture; native across North America.

Lupinus polyphyllus Lindl., bigleaf lupine (Leguminosae). Largest and most lush Northwest lupine, to 3 to 4 ft tall, 6 to 24 in. spikes of blue, violet, or reddish flowers; does best in open, moist areas.

Oxalis oregana Nutt., Oregon oxalis or redwood sorrel (Oxalidaceae). An aggressive groundcover for moist shaded areas, handsome foliage, white flowers in spring; botanical form *smalliana* (Knuth) Munz, with deep rose-purple flowers and patterned leaves, is especially attractive.

Smilacina racemosa (L.) Desf., false Solomon's seal (Liliaceae). Arching stems to 3 ft tall, with panicles of often fragrant white flowers, red berries in fall; a beautiful, bold garden plant for light to rather deep shade with moisture.

Thalictrum occidentale Gray, western meadow rue (Ranunculaceae). Delicately beautiful foliaged plant, finer textured than most meadow rues, 2½ to 4 ft tall in flower; for open woodland or semi-shaded border plantings.

Vancouveria hexandra (Hook.) Morr. & Dec., inside-out flower (Berberidaceae). A foot high plant of moist shady woods, dull green hexagonal leaflets make it a most attractive plant, lacy panicles of sparse ¼ in. white flowers in spring; vigorous, can be invasive if not contained; excellent groundcover under trees, around ericaceous and other shrubs.

Many other Pacific Northwest herbaceous perennials are also worthy of consideration and should be tried. Following is a partial list.

Achlys triphylla (Smith) DC., vanillaleaf (Berberidaceae)
Actaea rubra (Ait.) Willd., western red baneberry (Ranunculaceae)
Anemone multifida Poir. var. *multifida*, Pacific anemone (Ranunculaceae)
Angelica arguta Nutt. ex T. & G., *A. canbyi* Coult. & Rose, angelica (Umbelliferae)
Armeria maritima (Mill.) Willd., thrift or sea pink (Plumbaginaceae)
Arnica cordifolia Hook., heartleaf arnica (Compositae)
Artemisia tilesii Ledeb. var. *unalascensis* Bess., Aleutian mugwort (Compositae)
Asarum caudatum Lindl., wild ginger (Aristolochiaceae)
Aster L. spp., aster (Compositae)
Roykinia elata (Nutt.) Greene, slender boykinia (Saxifragaceae)
Cynoglossum grande Dougl., Pacific hound's tongue (Boraginaceae)
Delphinium spp., larkspur (Ranunculaceae), many forms, blue to white

Erigeron glaucus Ker-Gaul,
Eschscholzia californica Ch
Gaillardia aristata Pursh, ga
Geranium oreganum Howell
G. viscosissimum F. & M., s
Geum triflorum Pursh var. c
Helenium autumnale L., sne
Heuchera micrantha Dougl.
Lupinus spp., lupine (Legum
Mertensia paniculata (Ait.)
 (Boraginaceae)
Mimulus spp., monkeyflowe
Montia cordifolia (Wats.) Pa
Nothochelone nemorosa (C
 (Scrophulariaceae)
Oxalis sukedorffii Trel., west
Peltiphyllum peltatum (Torr.
 (Saxifragaceae)
Penstemon spp., penstemon
Petasites frigidus Fries var. I
 coltsfoot (Compositae)
Polemonium occidentale Gre
 Munz, western polemoni
Potentilla gracilis Dougl. ex
P. villosa Pall. ex Pursh, vil
Sidalcea spp., checker malle
Solidago spathulata DC.
 (Compositae)
Streptopus amplexifolius (L.
S. roseus Michx. var. *curvif
Tellima grandiflora (Pursh) I
Tolmiea menziesii (Pursh) T.
Trautvetteria carolinensis (W
Trientalis latifolia Hook., we
Valeriana sitchensis Bong., C
Veratrum spp., false hellebo*

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 2. Emery, Dara E. 1988. S Barbara, California: Sant
 3. Hitchcock, C. Leo and Ar Seattle: University of Wa
 4. Kruckeberg, Arthur R. 19 west. Seattle: University C
 5. Schmidt, Marjorie G. 1980 city of California Press.
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Eschscholzia californica Cham., California poppy (Papaveraceae)
Gaillardia aristata Pursh, gaillardia (Compositae)
Geranium oreganum Howell, western geranium (Geraniaceae)
G. viscosissimum F. & M., sticky purple geranium (Geraniaceae)
Geum triflorum Pursh var. *ciliatum* (Pursh) Fassett, prairie smoke avens (Rosaceae)
Helenium autumnale L., sneezeweed (Compositae)
Heuchera micrantha Dougl. ex Lindl., smallflowered alumroot (Saxifragaceae)
Lupinus spp., lupine (Leguminosae)
Mertensia paniculata (Ait.) G. Don var. *borealis* (Macbr.) Williams, tall bluebells
(Boraginaceae)
Mimulus spp., monkeyflower (Scrophulariaceae) yellow and red forms
Montia cordifolia (Wats.) Pax & K. Hoffm., broadleaved montia (Portulacaceae)
Nothochelone nemorosa (Dougl. ex Lindl.) Straw, woodland beardtongue
(Scrophulariaceae)
Oxalis suksdorfii Trel., western yellow oxalis (Oxalidaceae)
Peltiphyllum peltatum (Torr.) Engl. = *Darmera peltata* (Torr.) Voss, umbrella plant
(Saxifragaceae)
Penstemon spp., penstemon (Scrophulariaceae)
Petasites frigidus Fries var. *palmatus* (Ait.) Cronq. = *P. palmatus* (Ait.) Gray, sweet
coltsfoot (Compositae)
Polemonium occidentale Greene = *P. caeruleum* L. subsp. *amygdalinum* (Wherry)
Munz, western polemonium (Polemoniaceae)
Potentilla gracilis Dougl. ex Hook., slender cinquefoil (Rosaceae)
P. villosa Pall. ex Pursh, villous cinquefoil (Rosaceae)
Sidalcea spp., checker mallow (Malvaceae)
Solidago spathulata DC. var. *neomexicana* (Gray) Cronq., dune goldenrod
(Compositae)
Streptopus amplexifolius (L.) DC., clasping-leaved twisted-stalk (Liliaceae)
S. roseus Michx. var. *curvipes* (Vail) Fassett, rosy twisted-stalk (Liliaceae)
Tellima grandiflora (Pursh) Dougl., fringecup (Saxifragaceae)
Tolmiea menziesii (Pursh) T. & G., piggy-back plant (Saxifragaceae)
Trautvetteria carolinensis (Walt.) Vail, false bugbane (Ranunculaceae)
Trientalis latifolia Hook., western starflower (Primulaceae)
Valeriana sitchensis Bong., Sitka valerian (Valerianaceae)
Veratrum spp., false hellebore (Liliaceae)

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