



Using Native Plants in the Landscape

Presented by
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What is a native plant?

- According to the National Wildlife Federation, “A plant is considered native if it has occurred naturally in a particular region, ecosystem, or habitat without human introduction.”
- Another definition, from the USDA’s Natural Resources Conservation Services: “A plant that is a part of the balance of nature that has developed over hundreds or thousands of years in a particular region or ecosystem.
Note: The word native should always be used with a geographic qualifier (that is, native to New England [for example]). Only plants found in this country before European settlement are considered to be native to the United States.”

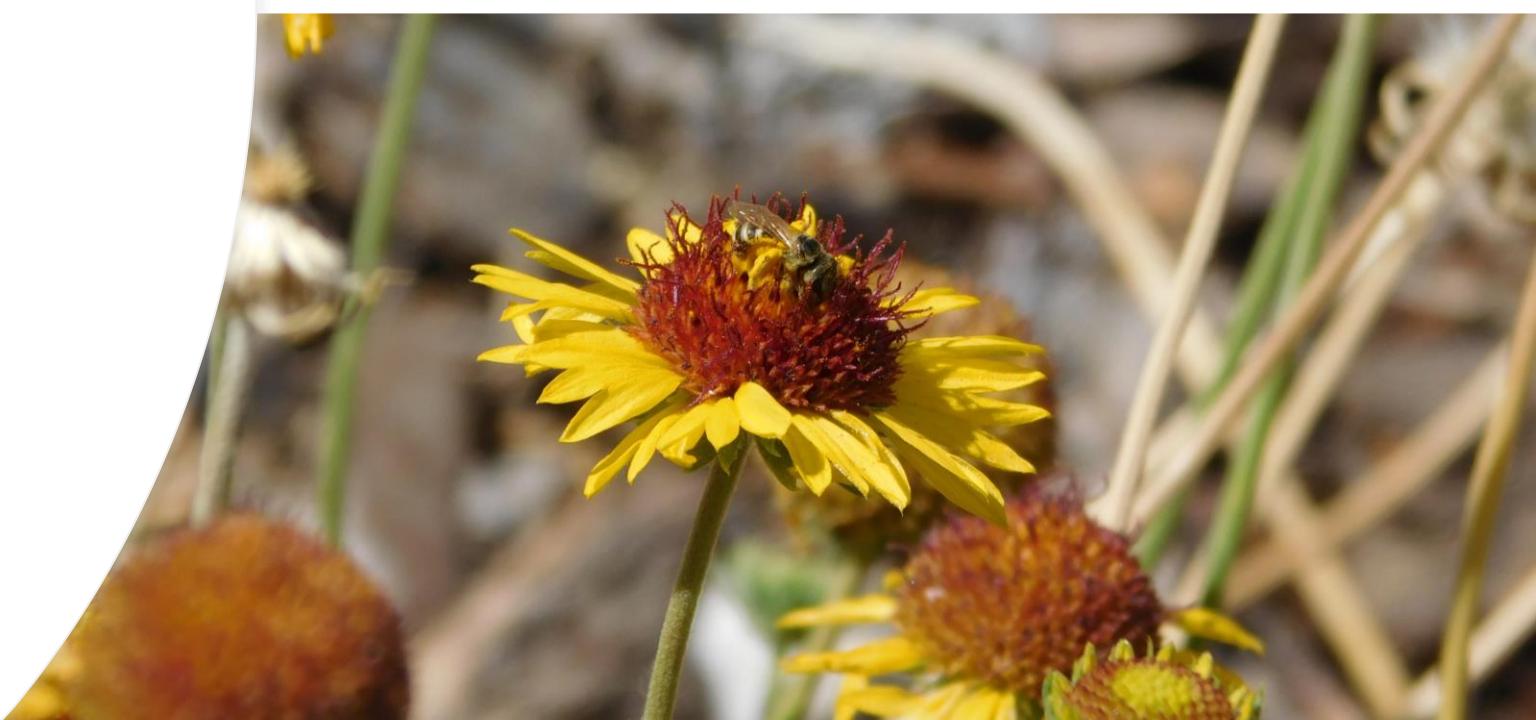
What is a native plant?

- For our purposes, we'll focus on:
- Species native to NCW, including the Columbia River basin, the Wenatchee River valley, and the east side of the Cascades; and
- Adjacent region(s) with similar ecosystems, especially the shrub-steppe.



Why native plants matter

- Habitat loss and fragmentation, pesticides, disease, and parasites are threatening pollinator and insect populations everywhere.
- Native plants have co-evolved over thousands of years with native fauna, including seasonal migrants, and provide food and shelter for animals of all shapes and sizes.
- They will thrive in the right location without extra water, fertilizers, or pesticides.





Design intent: functional and aesthetic goals of your project

- Your design intent can be all-encompassing, e.g., “I want to turn my back yard into a wildlife habitat,” or consist of several different goals. Some examples include:
- Providing habitat for beneficial insects and birds;
- Restoring a disturbed habitat;
- Designing a landscape that blends in with adjacent wildlands;
- Creating a “wildflower” garden or meadow;
- Planting a hedgerow for privacy and diversity;
- Educating students or the public.



Understanding your site

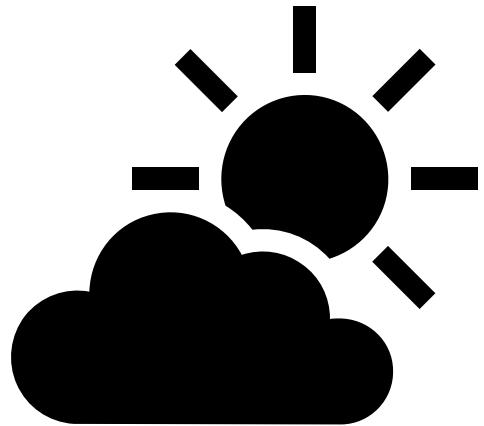
- To choose the right plants, you need to analyze your site conditions:
 - Water, grading, and drainage;
 - Soil types;
 - Sun exposure;
 - Local ecology;
 - Existing plants.

Water availability, grading, and drainage on your site

- Wenatchee averages 9-12" of precipitation per year.
- Grading and drainage is most important as snow melts in the spring.
- Always allow space for snow removal along walkways and driveways.
- Ponding or wet areas could indicate you're watering too much.
- Integrating native plants into your landscape, especially drought-tolerant ones, will require you to rethink how you irrigate, whether you hand-water, use soaker hoses, or have a built-in irrigation system.

Know your soil type(s)

- Fine-textured soils (high clay content) hold more water than coarse-textured soils but have low oxygen-holding capacity (aeration).
- **Coarse-textured soils have high permeability and low water-holding capacity, making them suitable for only well-adapted plant species!**
- Medium-textured soils (loam family) are suitable for growth of most plants.
- Analyze your garden soil: Cascade Analytical , Soiltest Farm Consultants , or another organization.
- *Soil texture overview* (from “General Soils 101,” Tianna Dupont, WSU Tree Fruit Extension. January 2017; edited October 2018)



Sun exposure on your site

- Full sun: >6 hours/day, but some plants need 8-10 hours.
- Part sun or part shade: 3-6 hours of direct sun/day, but it should be morning or late afternoon sun.
- Shade: generally means <3 hours of sun/day (morning or evening) or dappled or indirect light.
- Sun exposure will vary across different parts of your yard and will change as trees mature.

Survey and assess your existing plants

- Put together a list of the plants you want to keep.
- Existing trees create shade but can be water hogs, especially non-natives.
- Some non-native shrubs could be relocated.
- Most non-native perennials and ornamental grasses can be divided and/or relocated in spring or fall.
- Plants with moderate or high water needs will need to be clustered together away from drought-tolerant natives.

Q & A

- Do you have any questions about analyzing your site conditions or any of the topics we've discussed so far?

Limiting factors for plant selection

- Water, soil type, and sun exposure are the main factors limiting which plants will thrive in your landscape.
- To minimize supplemental watering, choose plants adapted to local precipitation amounts.
- If you have native soils on your site, look to nearby wildlands for plant inspiration. If you have soil that's been amended with lots of organic matter, you can expand your plant palette.
- As trees grow the sunlight on your property will change. Many plants will tolerate a wide range of conditions, but full sun plants will suffer in full shade and vice versa.

Building a native plant palette

- Your goal should be to choose plants **already** adapted to your site conditions.
- Where should you start? Take pictures of plants you see hiking, look in books, and use online resources such as derbycanyonnatives.com.
- Build a list of each type of plant (shade trees, ornamental trees, shrubs, grasses, perennials, groundcovers) that matches your site conditions and your preferences (e.g., specific color(s), attracts pollinators, feeds birds).

Betsy's personal plant palette: Trees

- Douglas maple (*Acer glabrum*)
Our limiting factors are our small yard + sandy soil + no irrigation. Sun exposure varies around the yard.





Betsy's personal plant palette: Shrubs

- Kinnikinnick (*Arctostaphylos uva-ursi*) [A woody groundcover]
- Rabbitbrush (*Ericameria nauseosa*)
- Oceanspray (*Holodiscus discolor*)
- Serviceberry (*Amelanchier alnifolia*)

Betsy's personal plant palette: Shrubs

- Red-flowering currant (*Ribes sanguineum*)
- Wax currant (*Ribes cereum*)
- Purple sage (*Salvia dorrii*)



Betsy's personal plant palette: Grasses

- Indian ricegrass (*Achnatherum hymenoides*)
- Bottlebrush squirreltail (*Elymus elymoides*)
- Pinegrass (*Calamagrostis rubescens*)



Betsy's personal plant palette: Grasses

- Junegrass (*Koeleria cristata*)
- Basin wildrye (*Leymus cinereus*)
- Idaho fescue (*Festuca idahoensis*)



Betsy's personal plant palette: Perennials

- Showy milkweed (*Asclepias speciosa*)
- Snow buckwheat (*Eriogonum niveum*)
- Pearly everlasting (*Anaphalis margaritacea*)
- Silky lupine (*Lupinus sericeus*)
- Western goldenrod (*Solidago lepida*)



Betsy's personal plant palette: Perennials

- Scarlet gilia (*Ipomopsis aggregata*)
- Red columbine (*Aquilegia formosa*)
- Orange globemallow (*Sphaeralcea munroana*)
- Coyote mint (*Monardella odoratissima*)
- Penstemons



Betsy's personal plant palette: Perennials



- Blanketflower (*Gaillardia aristata*)
- Blue flax (*Linum lewisii*)
- Showy daisy (*Erigeron speciosus*)
- Indian paintbrush (*Castilleja*)
- Arrowleaf balsamroot (*Balsamorhiza sagittata*)

Designing a pollinator garden

- Include enough different species to provide flowers spring through fall. The following lists are a good start.
- You can stick with just perennials (and annuals) or incorporate trees, shrubs, and/or grasses as well.





Q&A

- Do you have any questions about building your plant palette or other topics we've discussed so far?

Native pollinator plants for areas with 9-12" annual precipitation

- Arrowleaf balsamroot (*Balsamorhiza sagittata*), spring blooms
- Yarrow (*Achillea millefolium*), spring /summer blooms
- Blanketflower (*Gaillardia aristata*), spring /summer blooms
- Blue flax (*Linum lewisii*), spring blooms
- Rabbitbrush (*Ericameria nauseosa*), fall blooms



Native pollinator plants for areas with 12-18" annual precipitation

- Creamy buckwheat (*Eriogonum heracleoides*), summer blooms
- Yellow bee plant (annual) (*Cleome lutea*), spring blooms
- Arrowleaf balsamroot (*Balsamorhiza sagittata*), spring blooms
- Blanketflower (*Gaillardia aristata*), spring /summer blooms
- Blue flax (*Linum lewisii*), spring blooms
- Missouri goldenrod (*Solidago missouriensis*), summer and fall blooms
- Orange globemallow (*Sphaeralcea munroana*), spring/summer blooms
- Bluebunch wheatgrass (*Pseudoroegneria spicata*)
- Rabbitbrush (*Ericameria nauseosa*), fall blooms



Plan before you plant

- Start with a scaled sketch of the area you're working on.
- Stick with basic design principles; you're creating a garden or landscape, not chaos.
- Follow Firewise design principles, which means that you shouldn't put flammable mulches or plants such as sagebrush near your house.
- Sketch in the main plants, plant masses, lawns, paths, and hardscapes.
- Group plants by the amount of water they need.
- Label the plants generically, e.g., tall grass, flowering shrub, small tree, then assign specific plants.
- Label plants and quantities on your final landscape plan. Hint: use abbreviations and a plant key.

Basic planting design

- Scale: don't overwhelm a small space and don't skimp in a large space.
- Trees and shrubs form the backbone of your landscape.
- Plant in groups of 3, 5, 6, or more, except for a few specimens.
- Arrange your plants in layers, with the shorter plants by walkways and paths and taller plants behind them.
- Respect the house or neighborhood's style—formal, informal, cabin, cottage.
- If you have a spectacular view, frame it, don't block it!
- Use color intentionally. Don't forget about annuals.



Q&A

- Do you have any questions about the design process?

Seed and plant sources

- Derby Canyon Natives, Peshastin, derbycanyonnatives.com. Due to COVID, check their website for details on placing orders this spring and for plant pricing and availability.
- BFI Native Seeds, bfinativeseeds.com, Native grass seeds and forbs for restoration and preservation in the Pacific Northwest and Inland Northwest, Moses Lake, Washington, 509.765.6348.
- https://www.wnps.org/content/documents/plants/gardenin_g/native-plant-seed-sources_2-28-2020.pdf, Washington Native Plant Society, Native Plant and Seed Sources 2020.

Additional resources

- Native Plant Finder from National Wildlife Federation,
www.nwf.org/nativeplantfinder
- Xerces Society, Washington Biology Technical Note 24 (Revised): Plants for Pollinators in the Inland Northwest
<https://www.xerces.org/sites/default/files/publications/13-004.pdf>
- “Restoring Shrub-Steppe in the Methow Valley,” Methow Conservancy, Winthrop, Washington, 2006.
- “Gardening with Native Plants of the Pacific Northwest,” Arthur R. Kruckeberg, University of Washington Press, 1982, 1996.
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