


[SEA Program home](#) > [Slope Stabilization Home](#) > Plant Selection Guide

Plant Selection Guide

The following table will help you select the best plants for your erosion control or slope stabilization project. Due to the amount of information involved, the table is split into two sections. Half of the information on each plant is in the first table, half in the second. To read the second half of a plant's characteristics, simply click on its name. When you are finished, click the name again to return to your place in the first half of the table.

Name	Form & Habit	Rooting Characteristics	Planting Condition	Comments
Red Alder (<i>Alnus rubra</i>)	Deciduous tree; seeds prolifically on bare soil	Fibrous, Moderately deep	Bareroot seedlings up to 3' tall; larger plants in containers	Fast grower in poor mineral soils; typical 40-50 year lifespan; large limbs become brittle; provides food for birds
Pacific Willow (<i>Salix lasiandra</i>)	Deciduous multi-stemmed tree; does not spread	Fibrous, Moderately deep and widespread	Rooted plants to 10' tall in containers; cuttings 18" - 24"; whips 4'	Fast grower in saturated or shallowly flooded areas; 25 year lifespan - large limbs become brittle, tend to break off; stumps produce long, fast growing whips; easily rooted
Scouler Willow (<i>Salix scouleriana</i>)	Deciduous tree or shrub; does not spread	Fibrous, Moderately deep and widespread	Rooted plants to 10' tall in containers; cuttings 18" - 24"; whips 4'; whips not recommended	Of the willows listed here, this species tolerates the driest conditions
Sitka Willow (<i>Salix sitchensis</i>)	Deciduous tree or shrub; does not spread	Fibrous, Moderately deep and widespread	Rooted plants to 10' tall in containers; cuttings 18" - 24"; whips 4'; whips not recommended	Fast grower in moist to saturated soils; widely used for streambank stabilization
Douglas Fir (<i>Pseudotsuga menziesii</i>)	Coniferous tree; does not spread	Tap - Modified Tap, Shallow to deep and widespread	12" - 18" bareroot seedlings; larger plants in containers	Generally not considered a primary species for slope face stabilization; high root strength but typical shallow rooting characteristics in thin coastal soils; can be planted in stands in slope crest greenbelts; good eagle and osprey perch and nest trees; potential for wind throw in thin or disturbed soils
Northern Black Cottonwood (<i>Populus trichocarpa</i>)	Deciduous; does not spread	Fibrous, Shallow to deep, and widespread, extensive	Rooted plants to 10' tall in containers; cuttings 18" - 24"; whips 4'	Fast grower in moist to saturated soils; also widely used for streambank stabilization; potential wind throw

			tall	
Red-Osier Dogwood (<i>Cornus stolonifera</i> or <i>Cornus sericea</i>)	Deciduous shrub; does not spread	Fibrous, shallow	Rooted plants to 6' tall in containers; bareroot & cuttings 18" - 24" tall	Attractive shrub that produces bright red stems
Black Twinberry (<i>Lonicera involucrata</i>)	Deciduous shrub; does not spread	Fibrous, shallow	Rooted plants to 6' tall in containers; bareroot 18" - 24" tall	Produces yellow twin flowers and black twin berries; some success reported from cuttings
Ninebark (<i>Physocarpus capitatus</i>)	Deciduous shrub; does not spread	Fibrous, shallow	Rooted plants to 6' tall in containers; bareroot 18" - 24" tall	Produces masses of tiny white flowers which change to reddish seed clumps
Cascara (<i>Rhamnus purshiana</i>)	Deciduous tree/shrub; does not spread	Tap - Moderately deep	Rooted plants to 6' tall in containers; bareroot 18" - 24" tall	Shiny black berries are favored by Cedar Waxwings
Salmonberry (<i>Rubus spectabilis</i>)	Deciduous shrub; spreads by underground runners to form thickets	Fibrous, Shallow	Rooted plants to 4' tall in containers; bareroot 6"-8" tall; cuttings 18"-24"	Spreads quickly once established; berries provide food for a variety of songbirds
Hooker Willow (<i>Salix hookeriana</i>)	Deciduous shrub; does not spread	Fibrous, Moderately deep	Rooted plants to 6' tall in containers; bareroot & cuttings 18"-24" tall; whips 4'; whips not recommended	A horticultural variety, "Clatsop," has been developed by the Soil Conservation Service for its vigor, disease resistance & attractive foliage; salt spray tolerant
Red Elderberry (<i>Sambucus racemosa</i>)	Deciduous shrub; does not spread	Fibrous, Shallow	Rooted plants to 6' tall in containers; bareroot 18"-24" tall	Produces red, non-edible berries; some success reported from woody cuttings
Douglas' Spiraea (<i>Spiraea douglasii</i>)	Shrub; spreads by seed & underground runners to form seed	Fibrous, Shallow	Rooted plants to 6' tall in containers; bareroot & cuttings 18"-24" tall	Spreads quickly & aggressively in most sites
Snowberry (<i>Symphoricarpos albus</i>)	Deciduous shrub; spreads by underground runners to form thickets	Fibrous, Shallow	Rooted plants to 24" tall; bareroot 6"-18" tall	Tolerates high winds and often grows on vegetated slopes overlooking salt water

Salal <i>(Gaultheria shallon)</i>	Evergreen shrub; spreads by underground runners to form thickets	Fibrous, Shallow	Rooted plants 4" to 12" tall	Widely available; difficult to establish; slow growing; tolerates salt spray
Ocean Spray <i>(Holodiscus discolor)</i>	Deciduous shrub; does not always spread aggressively	Fibrous, Moderate	Rooted plants to 2' tall in containers; bareroot 6"-12" tall	Produces attractive sprays of creamy-white flowers; will root spread
Vine Maple <i>(Acer circinatum)</i>	Deciduous shrub; does not always spread aggressively	Fibrous, Moderate	Rooted plants to 4' tall in containers; balled & burlapped plants to 10' tall	Large specimens widely available; spreads by root and seed
Kinnickinick <i>(Arctostaphylos Uva-ursi)</i>	Low-growing shrub; spreads to form a dense, evergreen carpet	Fibrous, Shallow	Rooted plants in containers	Widely available evergreen ground cover; tolerates salt spray
Thimbleberry <i>(Rubus parviflorus)</i>	Deciduous shrub; spreads by underground runners to form thickets	Fibrous, Shallow	Rooted plants in containers	May be difficult to find in some native plant nurseries
Indian Plum <i>(Oemleria cerasiformis)</i>	Deciduous shrub; spreads by underground stems to form open stands	Fibrous w/horizontal, underground runners, Shallow	Rooted plants to 4' in containers; bareroot 6'-8' tall	Male and female flowers are on separate plants; only female flowers produce the attractive "plums"
Evergreen Huckleberry <i>(Vaccinium ovatum)</i>	Evergreen shrub; does not spread	Fibrous, Shallow	Rooted plants to 2' tall in containers	Attractive but slow growing; difficult to establish; tolerates salt spray
Nootka Rose <i>(Rosa nutkana)</i>	Deciduous shrub; spreads by underground runners to form thickets	Fibrous, Shallow (not extensive)	Rooted plants to 2' tall in containers; bareroot to 18" tall; cuttings 12"-18"	Thickets of spring stems create a formidable barrier; produces attractive, pink flowers followed by large, red hips; tolerates salt spray
Red Currant <i>(Ribes sanquineum)</i>	Deciduous shrub; does not spread	Fibrous, Shallow (not extensive)	Rooted plants to 4' tall in containers; bareroot to	One of our finest ornamental natives; produces clusters of white to red flowers

			18" tall	
Wax Myrtle (<i>Myrica californica</i>)	Evergreen shrub; does not spread	Fibrous, Moderate	Rooted plants to 10'	Tolerates salt spray; high wildlife usage
Native Plant Seed Mixes	Annual and perennial grass and forb mixes available	Fibrous, Shallow	Seed	Woody plant seeds also available (success typically low); very slow to establish; avoid exotic commercial mixes; seed mixes typically used in conjunction with other vegetation plantings; typically short-term erosion control technique

Other Attributes

Name	Mature Size	Water Requirements	Light Requirements	Soil Requirements	Recommended Spacing
Red Alder (<i>Alnus rubra</i>)	Height: 80'+ Spread: 40'	Moist conditions, No data	Full Sun	Any soil	10'+
Pacific Willow (<i>Salix lasiandra</i>)	Height: 40'+ Spread: 25'	Wet conditions, Usage high?	Full Sun	Any soil - tolerates shallow flooding during the growing season	6'+ for rooted plants, 2' for whips or cuttings
Scouler Willow (<i>Salix scouleriana</i>)	Height: 30' Spread: 15'	Dry-moist conditions, Usage high?	Full Sun	Any soil	6'+ for rooted plants, 2' for whips or cuttings
Sitka Willow (<i>Salix sitchensis</i>)	Height: 30' Spread: 25'	Moist conditions, Usage high?	Full Sun	Any soil	6'+ for rooted plants, 2' for whips or cuttings
Douglas Fir (<i>Pseudotsuga menziesii</i>)	Height: 200'+ Spread: 50'	Dry-moist conditions, Usage moderate	Full Sun	Any soil	10'+
Northern Black Cottonwood (<i>Populus trichocarpa</i>)	Height: 100'+ Spread: 40'	Moist conditions, Usage high	Full Sun	Any soil - tolerates shallow flooding during the growing season	6'+ for rooted plants; 2' for whips or cuttings
Red-Osier Dogwood (<i>Cornus stolonifera</i> or <i>Cornus sericea</i>)	Height: 20' Spread: 20'	Moist-Wet, No data	Full Sun Sun/Shade	Any soil - tolerates shallow flooding during the growing season	3'+ for rooted plants, 2' for cuttings
Black Twinberry (<i>Lonicera involucrata</i>)	Height: 10' Spread: 8'	Moist, No data	Full Sun	Any soil	4'+
Ninebark (<i>Physocarpus capitatus</i>)	Height: 15' Spread: 10'	Moist, No data	Full Sun Sun/Shade	Any soil	4'+

Cascara (<i>Rhamnus purshiana</i>)	Height: 25' Spread: 15'	Moist, No data	Full Sun	Any soil	4'+
Salmonberry (<i>Rubus spectabilis</i>)	Height: 8' Spread: 6'	Moist, No data	Sun/Shade Full Shade	Any soil	4'+
Hooker Willow (<i>Salix hookeriana</i>)	Height: 20' Spread: 15'	Moist-Wet, No data	Full Sun	Any soil	3'+ for rooted plants; 2' for cuttings
Red Elderberry (<i>Sambucus racemosa</i>)	Height: 15' Spread: 10'	Moist, No data	Full Sun Sun/Shade Full Shade	Any soil	4'+
Douglas' Spiraea (<i>Spiraea douglasii</i>)	Height: 8' Spread: 6"	Moist-Wet conditions, No data	Full Sun	Any soil - tolerates shallow flooding during the growing season	3' for rooted plants; 2' for cuttings
Snowberry (<i>Symphoricarpos albus</i>)	Height: 4' Spread: 3'	Dry-moist conditions, No data	Full Sun Sun/Shade Full Shade	Any soil - tolerates shallow flooding during the growing season	2'+
Salal (<i>Gaultheria shallon</i>)	Height: 3' Spread: 3'	Dry-moist conditions, No data	Sun/Shade Full Shade	Any soil - tolerates shallow flooding during the growing season	2'+
Ocean Spray (<i>Holodiscus discolor</i>)	Height: 10'+ Spread: 6'	Dry-moist conditions, No data	Full Sun Sun/Shade	Any soil - tolerates shallow flooding during the growing season	4'+
Vine Maple (<i>Acer circinatum</i>)	Height: 15'+ Spread: 10'	Moist conditions, No data	Sun/Shade Full Shade	Any soil - tolerates shallow flooding during the growing season	8'+
Kinnickinick (<i>Arctostaphylos Uva-ursi</i>)	Height: 8" Spread: 6"	Dry conditions, No data	Full Sun	Any slightly acid soil	2'
Thimbleberry (<i>Rubus parviflorus</i>)	Height: 4' Spread: 4'	Moist conditions, No data	Full Sun Sun/Shade	Any soil	3'
Indian Plum (<i>Oemleria cerasiformis</i>)	Height: 10' Spread: 6'	Moist conditions, No data	Full Sun Sun/Shade Full Shade	Any soil	4'+
Evergreen Huckleberry (<i>Vaccinium ovatum</i>)	Height: 6' Spread: 3'	Dry-moist conditions, No data	Sun/Shade Full Shade	Slightly acid	3'+
Nootka Rose (<i>Rosa nutkana</i>)	Height: 6' Spread: 3'	Moist conditions, No data	Full Sun	Any soil, prefers rich soils	3'
Red Currant (<i>Ribes sanquineum</i>)	Height: 8' Spread: 6'	Dry-moist conditions, No data	Full Sun Sun/Shade	Any soil	6'+
Wax Myrtle	Height:	Dry-moist	Full Sun	Slightly acid, with	

<i>(Myrica californica)</i>	15' Spread: 8'	conditions, No data	Sun/Shade	organic matter	10'+
Native Plant Seed Mixes	Height: 1'-2' Spread: varied	Dry-wet conditions, Medium-high	Species/mix dependent	Species/mix dependent	Apply as recommended

Table 3 based on information from: Myers Biodynamics staff experience; Binns, 1980; Stevens & Vanbianchi, 1993; Kruckeberg, 1982.

Footnotes

Water Requirements	Light Requirements	Rooting Characteristics	Planting Condition	Comments
Dry - Once established, tolerates dry soil conditions during the growing season	Full Sun - Requires sun throughout the day	Fibrous - Lacks a central root; root mass composed of fibrous lateral roots	Sizes given are those that are generally found in nurseries; other sizes may also be available	Growth rate; ornamental & wildlife value; wind/salt spray tolerance; maintenance; average life span
Moist - Requires moist soil throughout the growing season	Sun/Shade - Requires shade for about 1/2 the day	Tap - With a stout, central main root		
Wet - Tolerates saturated soil year-round	Full Shade - Requires shade throughout the day	Shallow, Moderate, Deep refers to relative rooting depth (influenced by soil and groundwater conditions)		
Usage - Relative water uptake by plant [e.g., high or no data]				