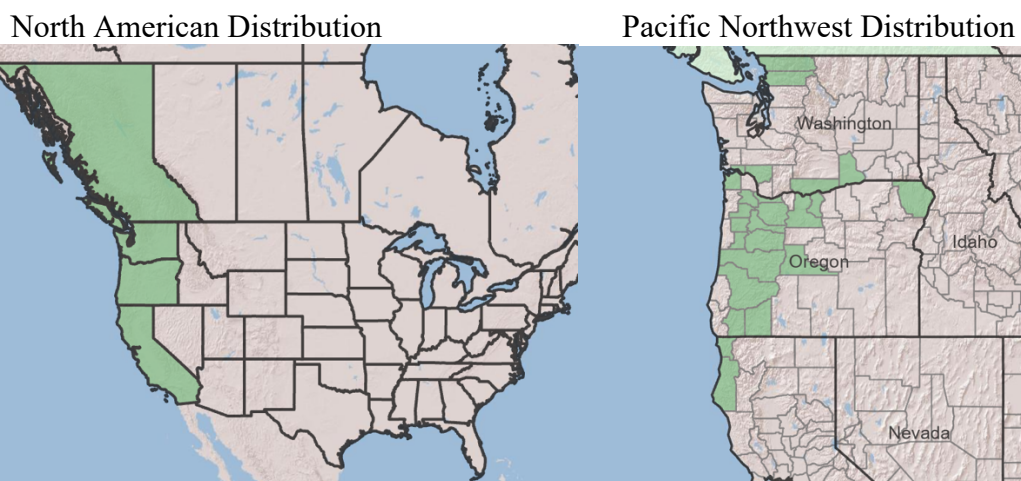


Plant Propagation Protocol for *Salix sessilifolia*
ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2022/SASE3>

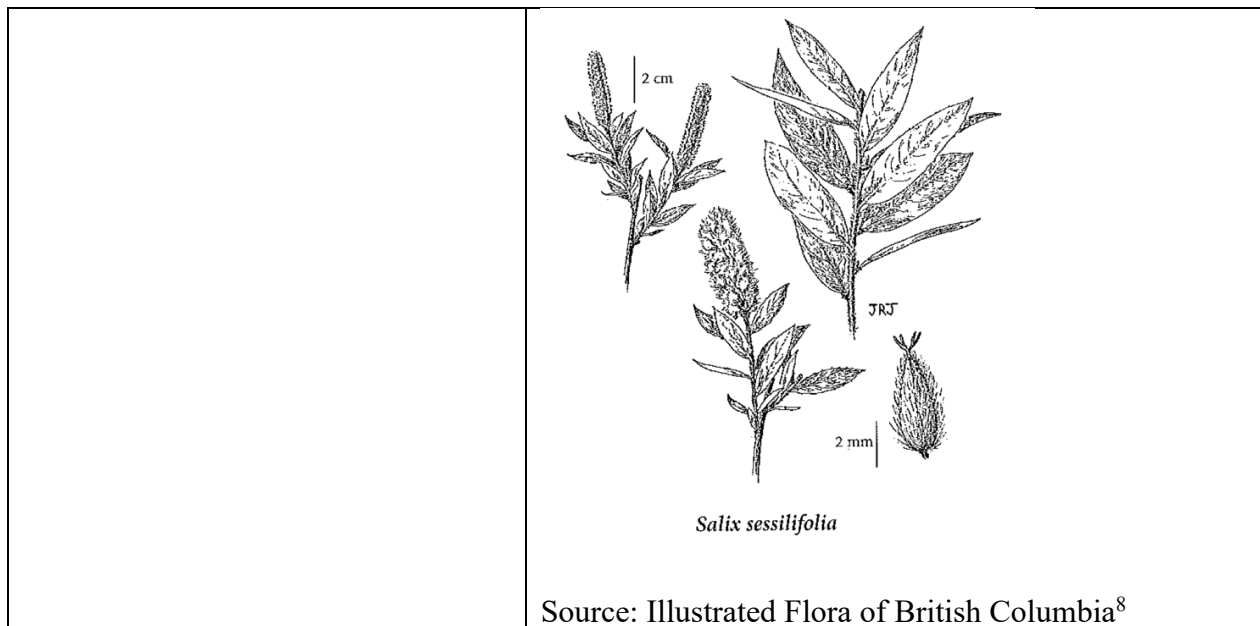


Source: USDA *Salix sessilifolia* Conservation Release⁶



Source: USDA Plant Database⁴

TAXONOMY	
Plant Family	
Scientific Name	<i>Salicaceae</i>
Common Name	Willow
Species Scientific Name	
Scientific Name	<i>Salix sessilifolia</i> Nutt.
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	<i>Salix fluviatilis</i> Nutt. ⁴ <i>Salix exigua</i> Nutt. ⁴ <i>Salix longifolia</i> Muhl. ⁴ <i>Salix macrostachya</i> Nutt. ⁴
Common Name(s)	Northwest sandbar willow, sandbar willow, 'Multnoma' Columbia River willow, Longleaf willow
Species Code (as per USDA Plants database)	SASE3
GENERAL INFORMATION	
Geographical range	Maps above depict the North American and Pacific Northwest Distribution
Ecological distribution	Coastal strand, mixed evergreen forest, redwood forest, riparian ⁵ wet lowlands: dredge spoils, sandy beaches, upper edge of intertidal zones ⁷
Climate and elevation range	Elevation: 0-1500 ft range ⁶ Climate: Medium water, light requirements: part shade, CaCO ₃ tolerance: high ⁹
Local habitat and abundance	Associated with <i>Salix sitchensis</i> , <i>Salix fluviatilis</i> , <i>Populus balsamifera</i> , <i>Alnus rubra</i> , <i>Acer macrophyllum</i> , and <i>Cornus sericea</i> ⁷
Plant strategy type / successional stage	Colonizer
Plant characteristics	General: shrub, 3-5 m tall, red-brown twigs, flexible trunk ³ leaves: alternate, linear to narrowly elliptic, 4-12 cm long, silky/soft-hairy ³ flowers: unisexual, catkins that emerge throughout the season, pale or dark in color, bloom in May-June ⁷



Source: Illustrated Flora of British Columbia⁸

Propagation from Cuttings as Detailed by Miller-Adamany, Gerber, and Thomsen¹¹ and USDA NRCS Corvallis Plant Materials Center⁶

Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Container (plugs)
Stock Type	983 mL Deepot Containers
Time to Grow	1 year ¹²
Target Specifications	This was not provided in any of the trials.
Propagule Collection Instructions	Collect dormant stakes in late winter/early spring just as buds are forming. ⁶ Take cuttings from younger trees/new growth of older trees for ease of removal ⁶ .
Propagule Processing/Propagule Characteristics	The cuttings should be 18-30 inches long and at least 1/2 inch in diameter ⁶ Remove any lateral branches ¹¹ and drill a pilot hole ⁶ or score the stake on the bottom ¹¹ Place in cold storage, soak bottom of the stakes in water and cover the top of the stakes covered with a plastic bag until ready to use ¹¹
Pre-Planting Propagule Treatments	Pre-planting treatment is not necessary, stakes can be planted after being stored for best results ¹¹ of planted directly after cutting ⁶
Growing Area Preparation / Annual Practices for Perennial Crops	Containers: plant 30 cm deep in 983 mL containers of moistened potting soil ¹¹ Field planting: Plant directly in soil, spot treat with herbicide where necessary and if it will not harm surrounding water supply or wildlife. Some sites may also need mulch to help maintain adequate moisture. ⁶

Establishment Phase Details	Stick in soil about 30 cm deep ¹¹ ensure that 2 buds remain above ground ⁶ and tap soil to make sure it is firm. Place in full sun and water to field capacity every two days to ensure soil moisture ¹¹
Length of Establishment Phase	1 month after rooting ¹²
Active Growth Phase	Field planting: periodic irrigation in the summer months may be needed during the first year following planting in order to ensure the soil is moist enough. ⁶ Also weeding/invasive plant removal will be needed depending on the site in the first year of growing until the trees are more established. ⁶
Length of Active Growth Phase	4 months ⁶
Hardening Phase	Hardening phase begins in the beginning of September and concludes with the trees lose their leaves and enter dormancy in early December ⁶
Length of Hardening Phase	3 months ⁶
Harvesting, Storage and Shipping	Stakes should be cut when the tree is in dormancy and can be transported and stored ⁶
Length of Storage	This was not provided.
Guidelines for Outplanting / Performance on Typical Sites	Out planting should occur in fall at the start of the rainy season to ensure adequate soil moisture. ⁶ Stakes planted in the pot stock type trial have a 100% sprout rate ¹¹ but survival rate in wild planting in a little less. Plants should flower the May-June after being planted. ⁶
Other Comments	n/a
INFORMATION SOURCES	
References	See below
Other Sources Consulted (but that contained no pertinent information) (full citations)	See below
Protocol Author	Elizabeth Leitz
Date Protocol Created or Updated	05/04/22

References:

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⁵The Calflora Database. *Salix sassilifolia* Nutt. *Taxon Report*. 2022. 4 May 2022.

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⁶USDA- NRCS Corvallis Plant Materials Center. *'Multnomah' Columbia River willow Conservation Plant Release*. 2013. 3 May 2022.

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⁷Field Guide to the Rare Plants of Washington. *Salix Sessilifolia*. 2 May 2022.

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⁸ Douglas, George., Pojar, Jim., Meidinger, Del. *Illustrated Flora of British Columbia Volume 5*. Pp. 57. 2000. 3 May 2022.

<<https://www.for.gov.bc.ca/hfd/pubs/docs/mr/Mr104.pdf>>

⁹Lady Bird Johnson Wildflower Center. *Salix Sessilifolia*. 2012. 3 May 2022.

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¹¹ Miller-Adamany, Amber., Gerber, Timothy., Thomsen, Meredith. *Maximizing Stake Performance: Storage, Soaking, Scoring, and Auxin as Pre-Planting Techniques for Sandbar Willow (Salix exigua) Stakes*. Natural Areas Volume 37. Pp 412-418. 2017. 2 May 2022.

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¹² Orr, Miguel. *Plant Propagation Protocol for Salix exigua*. ESRM 412 Protocols. 2021. 3 May 2022.

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Other Sources Consulted:

²Global Biodiversity Information Facility

<<https://www.gbif.org/species/5372936>>

¹⁰Useful Temperate Plants

<<http://temperate.theferns.info/plant/Salix+sessilifolia>>