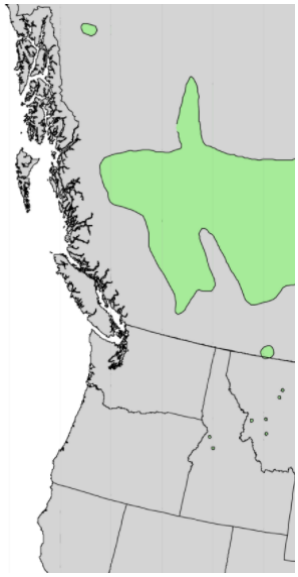
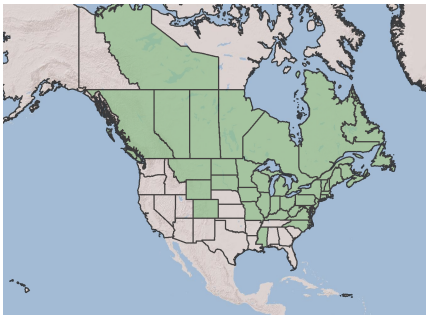
Plant Propagation Protocol for *Salix discolor*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*[year]*/*[USDASpeciesCode.pdf]*

TAXONOMY	
Plant Family	
Scientific Name	*Salix discolor*
Common Name	American Pussy Willow
Species Scientific Name	
Scientific Name	*Salix discolor* Muhl.
Varieties	*Salix discolor* Muhl. *overi* C.R. Ball *Salix discolor* Muhl. *prinoides* (Pursh) Andersson *Salix discolor* Muhl. *rigidior* (Andersson) C.K. Schneid.
Sub-species	None found
Cultivar	
Common Synonym(s)	*Salix ancorifera* Fernald *Salix conformis* Forbes *Salix crassa* Barratt *Salix fuscata* Pursh *Salix prinoides* Pursh *Salix sensitiva* Barratt *Salix squamata* Rydb.
Common Name(s)	Pussy Willow, American Pussy Willow
Species Code (as per USDA Plants database)	SADI
GENERAL INFORMATION	
Geographical range	 9  7

Ecological distribution	Occurs in wetland ecosystems. Extends across southern Canada and the northern American midwest and east regions.[7]
Climate and elevation range	Primarily found in continental climates, but can exist and occur in coastal climates. 350m-1800m[4]
Local habitat and abundance	Pussy willow most often occurs in poor drainage areas around waterways, shorelines, thickets, sloughs. Shade intolerant, commonly found around Dogwood and other Willow species.[4]
Plant strategy type / successional stage	Shade intolerant, colonizes open waterways once soil has been deposited, also when disturbances open up the forest canopy. Tolerant to disturbances aiding in its secondary succession in disturbned areas.[4]
Plant characteristics	Deciduous shrub-tree typically grows to about 6 meters. Weak-wooded with green leaves, flowers are white catkins.[6]
PROPAGATION DETAILS	
Ecotype	n/a
Propagation Goal	Cuttings
Propagation Method	Vegetative
Product Type	Container (plug)
Stock Type	
Time to Grow	About one year
Target Specifications	Firm root plug, 3 cm height
Propagule Collection Instructions	Collect semi-softwood cuttings of stemtips in the spring after dormancy has been broken in the spring.
Propagule Processing/Propagule Characteristics	Keep cuttings moist and cool after collection and before treatment. Cuttings should be 4-6cm in length with a 5mm caliper.
Pre-Planting Propagule Treatments	Treat cuttings with 1000 ppm IBA powder. Strike into a cutting medium with bottom heat and mist regularly.
Growing Area Preparation / Annual Practices for Perennial Crops	Use a rooting medium of 50% perlite and 50% sand. Keep in a shaded mist bed if available. Shade is essential for initial cutting development as well as consistent moisture and irrigation adjusted for ambient temperatures. Strike into trays in the mist bed.
Establishment Phase Details	After 4-6 weeks and adequate root systems have formed, cuttings can be lifted out of the mist bed or growing area.
Length of Establishment Phase	4 to 6 weeks
Active Growth Phase	Pot into 500 ml containers. Growing medium should be a mix of 50% peat moss, 10% perlite, 10% vermiculite, and 30% sand with a controlled release fertilizer. Keep well irrigated and in a shade house for 4 weeks. After 4 weeks and establishment in the new medium, move into full sun for another 4 weeks.
Length of Active Growth Phase	8 weeks

Hardening Phase	Gradually reduce irrigation over the Fall season before overwintering. Overwinter in an outdoor nursery.
Length of Hardening Phase	8 weeks
Harvesting, Storage and Shipping	Harvest in July. Store outside in a nursery.
Length of Storage	5 months
Guidelines for Outplanting / Performance on Typical Sites	Outplant close to waterways or in wetlands. Plant in full sun, not under shade.
Other Comments	
INFORMATION SOURCES	
References	1 Chmelar, J. "Propagation of Willows by Cuttings." *New Zealand Journal of Forestry Science* 4 (September 13, 1973): 185–90. 2 Evans, Jeff. "Propagation Protocol for Production of Container (Plug) Salix Arctica Pall. Plants 800 Ml Containers; USDI NPS - Glacier National Park West Glacier, Montana. In: Native Plant Network." US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources., 2001. https://npn.rngr.net/npn/propagation/protocols/salicaceae-salix-169/?searchterm=willow. 3 Flessner, Theresa R. "Propagation Protocol for Vegetative Production of Container Salix Orestera." Corvallis, Oregon: USDA NRCS - Corvallis Plant Materials Center, 2003. 4 Gucker, Corey L. Salix discolor. Fire Effects Information System, 2007. https://www.fs.fed.us/database/feis/plants/shrub/saldis/all.html. 5 Hartmann, Hudson Thomas, and Dale E. Kester. *Plant Propagation: Principles and Practices*. 4th ed. Englewood Cliffs, New Jersey: Prentice-Hall, 1983. 6 Klinkenberg, Brian, ed. "Salix Discolor Muhl. Pussy Willow." E-FLORA BC: ELECTRONIC ATLAS OF THE FLORA OF BRITISH COLUMBIA. E-Flora BC: An initiative of the Spatial Data Lab, Department of Geography UBC, and the UBC Herbarium, 2020.

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Other Sources Consulted	
Protocol Author	Ozi Shalom Goldstein
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