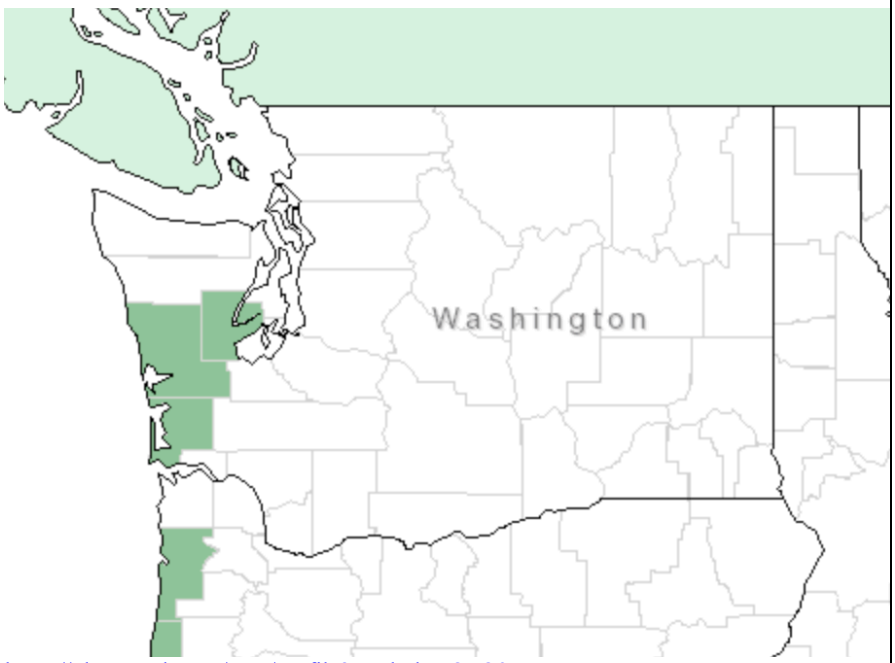
Plant Propagation Protocol for *Lotus formosissimus*
ESRM 412 – Native Plant Production
Protocol URL: https://courses.washington.edu/esrm412/protocols/*LOFO2.pdf*

https://www.wildflower.org/gallery/result.php?id_image=19991

TAXONOMY	
Plant Family	
Scientific Name	Fabaceae/Leguminosae (1)
Common Name	Pea family (1)
Species Scientific Name	
Scientific Name	*Lotus formosissimus* Greene (1)
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	*Lotus formosissimus* Greene (1) *Hosackia gracilis* Benth (2)

Common Name(s)	Seaside bird's-foot trefoil, seaside trefoil, seaside birds-foot lotus, coast lotus. (1,3,5)
Species Code (as per USDA Plants database)	LOFO2 (1)
	GENERAL INFORMATION
Geographical range	 https://plants.usda.gov/core/profile?symbol=LOFO2  https://plants.usda.gov/core/profile?symbol=LOFO2
Ecological distribution	*Lotus formosissimus* are occasionally found in wooded wetlands, but most typically found in wet prairies and on pond, pool, and lake shores. (3)
Climate and elevation range	This species is typically found near sea level to lower elevations in the mountains. (2)
Local habitat and abundance	In the United States, they are typically found in moist soil along the west coast, near sea level, or on the forest edge. In Canada, they are

	commonly associated with Garry oak, (*Quercus garryana*), brome (*Bromus* spp.), red fescue (*Festuca rubra*), wild strawberry (*Fragaria virginiana*), and tiny vetch (*Vicia hirsuta*). Also in Canada, they are listed as endangered on schedule 1 of the federal *Species at Risk Act.* (2,3,4,5)
Plant strategy type / successional stage	N/A
Plant characteristics	This species is a sprawling perennial forb/herb, with yellow and purple pea-like flowers. The flowers are in clusters of 3 to 12, located at the end of long, thin stalks. The flowers are two lipped, with the top petals being yellow, the side petals are purplish/pink, and the bottom petals are yellow with purple tips. The leaves are odd-pinnate, 4-8 cm long, with short petioles. The fruits are pods that are 3-6 cm long. They bloom from May-July. (1,2,3,7)
PROPAGATION DETAILS	
Ecotype	Lane Co., Oregon. (6)
Propagation Goal	Plants (6)
Propagation Method	Seed (6)
Product Type	Container (plug) (6)
Stock Type	N/A
Time to Grow	N/A
Target Specifications	N/A
Propagule Collection Instructions	N/A
Propagule Processing/Propagule Characteristics	N/A
Pre-Planting Propagule Treatments	N/A
Growing Area Preparation / Annual Practices for Perennial Crops	Grown in cone-tainers, in Sunshine #1 (a soil-less, peat-based media) amended with micro-nutrients (Osmocote 14-14-14). After sowing, the flats and cone-tainers were covered with polyethylene bags. They were then stored in a walk-in cooler for 90 days with temperatures between 35-40 degrees F. (6)
Establishment Phase Details	Flats were removed from the walk-in cooler after 90 days and place in a greenhouse with temperatures of 70 degrees F during the day and 50 degrees F at night. (6)
Length of Establishment Phase	The seeds germinated within 1-2 weeks, with 30% germination recorded. (6)
Active Growth Phase	N/A
Length of Active Growth Phase	N/A
Hardening Phase	N/A
Length of Hardening Phase	N/A

Harvesting, Storage and Shipping	N/A
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	N/A
Other Comments	N/A
INFORMATION SOURCES	
References	(1) Plant Profile for *Lotus formosissimus*. USDA, Natural Resources Conservation Service. https://plants.usda.gov/core/profile?symbol=LOFO2 (2) *Lotus formosissimus*. Burke Museum. University of Washington. http://biology.burke.washington.edu/herbarium/imagecollection.php?Genus=Lotus&Species=formosissimus (3) Guard, J. 1995. Wetland Plants of Oregon and Washington. Lone Pine Publishing. Auburn, WA. (4) *Lotus formosissimus*. 2002 Feb. Garry Oak Ecosystem Recovery Team. British Columbia, CA. http://www.goert.ca/documents/SAR_manual/Lotus_formosissimus.pdf (5) Assessment and Status Report on the Seaside Birds-foot Lotus in Canada. 2010, Nov. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON. https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/cosewic/sr_seaside_birds_foot_lotus_0911_eng.pdf (6) Bartow, A. 2007. Propagation protocol for production of Container (plug) *Lotus formosissimus* E. Greene plants USDA NRCS - Corvallis Plant Materials Center Corvallis, Oregon. In: Native Plant Network. https://npn.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=fabaceae-lotus-2805 (7) *Lotus formosissimus*. 2013 Dec 16. Lady Bird Johnson Wildflower Center. The University of Texas at Austin. https://www.wildflower.org/plants/result.php?id_plant=LOFO2
Other Sources Consulted	• Baskin, C and Baskin J. 2014. Seeds: Ecology, Biogeography, and Evolution of Dormancy and Germination. Academic Press. • *Lotus formosissimus*. Encyclopedia of Puget Sound. Puget

	Sound Institute, University of Washington Tacoma Center for Urban Waters. https://www.eopugetsound.org/species/lotus-formosissimus • *Lotus formosissimus* Greene. 2018. Calflora. Berkeley, CA. http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=5040 • Oliver, L. 2005 Feb 07. *Lotus formosissimus* Greene. Nature Serve Explorer. http://explorer.natureserve.org/servlet/NatureServe?searchName=Lotus+formosissimus • Young, JA and Young, CG. 1986. Seeds of Wildland Plants. Timber Press. Portland, OR.
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