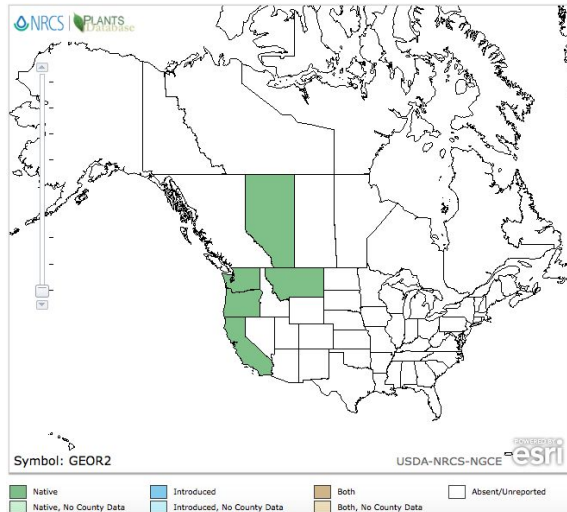


Plant Propagation Protocol for *Geranium oreganum*

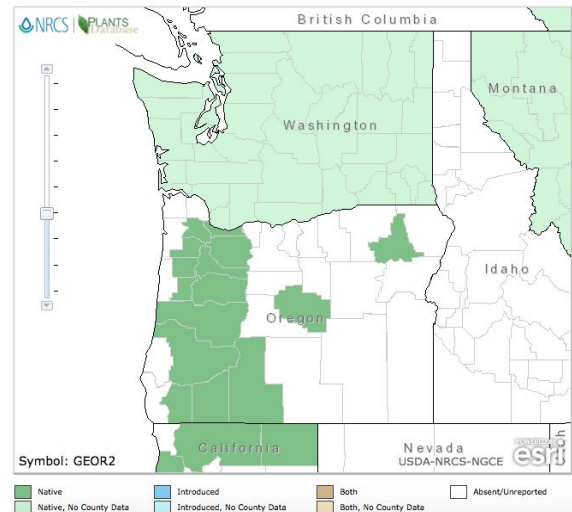
ESRM 412 – Native Plant Production

Spring 2016

North American Distribution



Washington State Distribution



Source: USDA PLANTS Database

TAXONOMY

Family Names

Family Scientific Name: Geraniaceae

Family Common Name: Geranium

Scientific Names

Genus: Geranium

Species: G. oreganum

Species Authority: Howell

Variety:

Sub-species:

Cultivar:

Authority for Variety/Sub-species:

Common Synonym(s) (include full

scientific names (e.g., <i>Elymus glaucus</i> Buckley), including variety or subspecies information)	
Common Name(s):	
Species Code (as per USDA Plants database):	
GENERAL INFORMATION	
Geographical range	CA, OR, WA and Alberta, CA - see top of protocol
Ecological distribution	Moist, generally shaded sites, meadows, forests
Climate and elevation range	700-1800m
Local Habitat and abundance	Grows in fine/medium texture soils that are moist. Found in meadows and in shady conditions
Plant strategy type/ successional stage	Forb/herb like plant that has a short lifespan and spreads through easily dispersed seeds.
Plant characteristics	Shade tolerant but has no drought tolerance. Temperatures below 7 degree F will induce mortality. Mature plants reach a height of 3 feet.
PROPAGATION DETAILS	
Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):	Plants
Propagation Method (Options: Seed or Vegetative):	Seed
Product Type (options: Container (plug), Bareroot (field grown), Plug + (container-field grown hybrids, and/or Propagules (seeds, cuttings, poles, etc.))	Container
Stock Type:	

Time to Grow (from seeding until plants are ready to be outplanted):	Unknown but growth rate is described as rapid
Target Specifications (size or characteristics of target plants to be produced):	Mature plant is 3 feet tall
Propagule Collection Instructions (how, when, etc):	Seed collection is optimal in Summer and Fall
Propagule Processing/Propagule Characteristics (including seed density (# per pound), seed longevity, etc):	Unknown
Pre-Planting Propagule Treatments (cleaning, storage, dormancy treatments, etc):	Seed dormancy exists for this species and may be broken with cold-moist stratification. A 90 day stratification period (35-40 degrees F) is sufficient to break dormancy
Growing Area Preparation / Annual Practices for Perennial Crops (growing media, type and size of containers, etc):	Greenhouse environment (70 degree F days/50 degree F nights) is suggested for optimal development. Cone-tainers filled with Sunshine #1 mixed with slow-release fertilizer may have seeds directly sown into the media.
Establishment Phase Details (from seeding to germination):	Unknown
Length of Establishment Phase:	1-2 weeks
Active Growth Phase (from germination until plants are no longer actively growing):	Unknown time period but growth rate is described as rapid
Length of Active Growth Phase:	Unknown
Hardening Phase (from end of active growth phase to end of growing season; primarily related to the development of cold-hardiness and preparation for winter):	Unknown time but growth rate is described as rapid
Length of Hardening Phase:	Unknown
Harvesting, Storage and Shipping (of seedlings):	Unknown

Length of Storage (of seedlings, between nursery and outplanting):	Unknown
Length of Storage (of seedlings, between nursery and outplanting):	Unknown
Other Comments (including collection restrictions or guidelines, if available):	None
INFORMATION SOURCES	
References (full citations):	<p>Bartow, Amy. 2007. Propagation protocol for production of Container (plug) <i>Geranium oreganum</i> Howell plants USDA NRCS - Corvallis Plant Materials Center Corvallis, Oregon</p> <p>USDA, NRCS, PLANTS Database, plants.usda.gov</p> <p>2000. <i>CalFlora: Information on California plants for education, research and conservation</i>. The CalFlora Database, Berkeley.</p> <p>Turner, Mark, and Phyllis Gustafson. <i>Wildflowers of the Pacific Northwest</i>. Timber Press, 2006.</p> <p>Jepson Interchange, http://ucjeps.berkeley.edu/cgi-bin/get_cpn.pl?GEOR2</p> <p>Integrated Taxonomic Informtaion System, http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=29111</p>
Other Sources Consulted (but that contained no pertinent information) (full citations):	<p>Lady Bird Johnson Wildflower Center, https://www.wildflower.org/collections/collection.php?collection=npn</p>
Protocol Author (First and last name):	Hardy Wooldridge

Date Protocol Created or Updated (MM/DD/YY):	May 25, 2016
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