

Plant Propagation Protocol for *Allium columbianum*

ESRM 412 – Native Plant Production

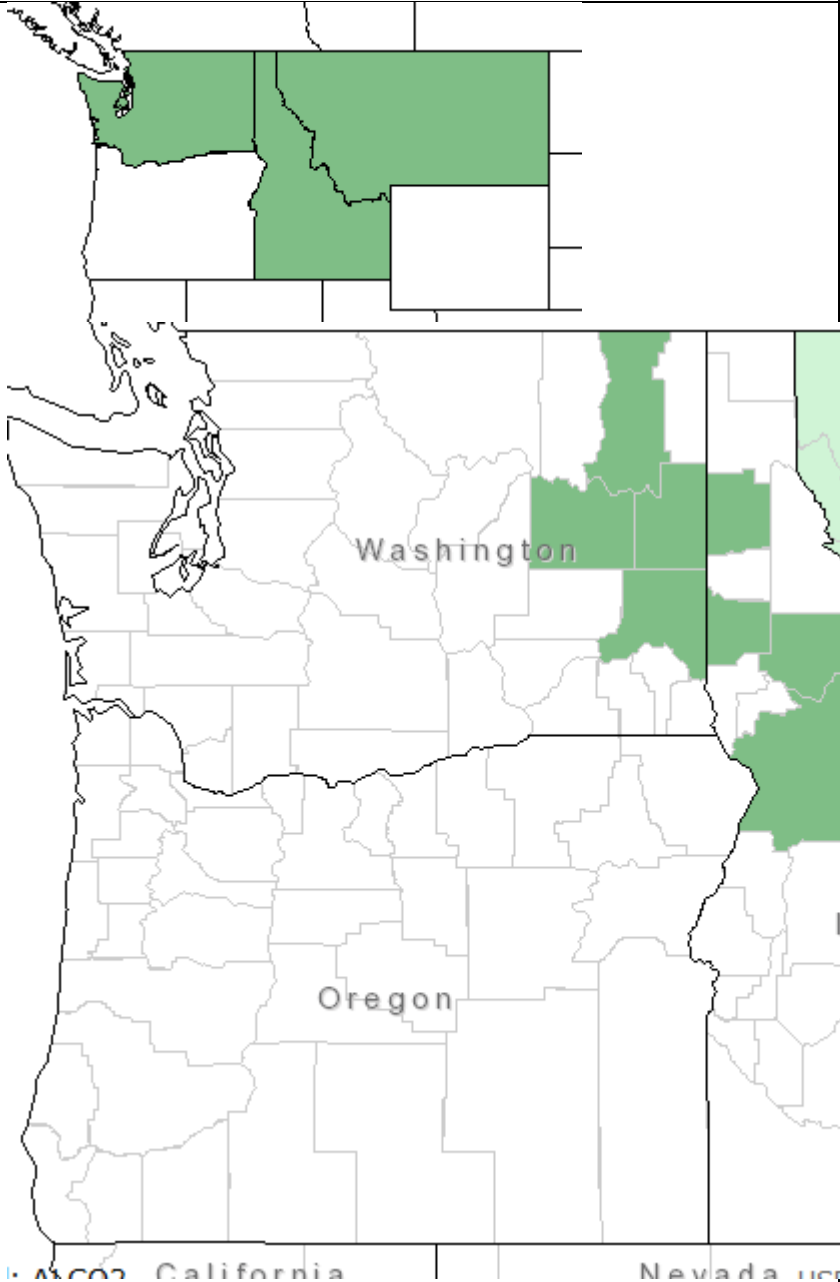
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Image Credit: Robert Carr

TAXONOMY

TAXONOMY	
Plant Family	
Scientific Name	Liliaceae
Common Name	Lily
Species Scientific Name	
Scientific Name	<i>Allium columbianum</i> (Ownbey & Mingrone) P.M. Peterson, Annable & Rieseberg
Varieties	
Sub-species	

Cultivar	
Common Synonym(s)	<i>Allium douglasii</i> var. <i>columbianum</i> Ownbey & Mingrone ¹
Common Name(s)	Columbian onion
Species Code (as per USDA Plants database)	ALCO2
GENERAL INFORMATION	
Geographical range (distribution maps for North America and for the Pacific Northwest (generally available at county level for Washington/Oregon))	 <p>Image Credit: USDA Plants Database</p>
Ecological distribution	Rocky, moderately deep soils that are wet in spring, and stoney meadows. ²
Climate and elevation range	<i>A. columbianum</i> requires wet winters. <i>A. columbianum</i> is typically found at 1000-3600ft in elevation. ³

Local habitat and abundance	Common associates: <i>Camassia quamash</i> , <i>Symphoricarpos albus</i> , <i>Eriogonum heracleoides</i> ²
Plant strategy type / successional stage	
Plant characteristics	Forb <i>A. columbianum</i> is identified by its flower cluster with two basal leaves, with a long stem. Additional leaves are found at the base of the stem, and are narrow and uncurved. The scape of <i>A. columbianum</i> is thickened below the umbel. ⁴
PROPAGATION DETAILS	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	
Time to Grow	1 year ⁵
Target Specifications	
Propagule Collection Instructions	Collect seeds from plant when dormant. ⁵
Propagule Processing/Propagule Characteristics	
Pre-Planting Propagule Treatments	No stratification required. ⁵
Growing Area Preparation / Annual Practices for Perennial Crops	<i>A. columbianum</i> prefers rocky soils that are wet. ⁶
Establishment Phase Details	Sow in spring in a cold frame. Transplant to individual container when seedlings are large enough to handle. In order to establish clumps more quickly, plant three seedlings in each container. ⁵
Length of Establishment Phase	
Active Growth Phase	Grow in greenhouse for at least their first winter. ⁵
Length of Active Growth Phase	
Hardening Phase	
Length of Hardening Phase	
Harvesting, Storage and Shipping	
Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites	Outplant in spring once plants are growing vigorously. ⁵
Other Comments	Clumps may be divided in spring. ⁵
INFORMATION SOURCES	

References	<p>¹ ITIS, <i>Allium columbianum</i>. Integrated Taxonomic Information System. [Accessed 5/24/20; https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=182645#null]</p> <p>² Peterson, P.M., Annable, C.R., Rieseberg, L.H., (1988) Systematic Relationships and Nomenclatural Changes in the <i>Allium douglasii</i> Complex (Alliaceae). <i>Systematic Botany</i> 13(2), 207-214.</p> <p>³ Allium columbianum. <i>Flora of North America</i>. 26, 266</p> <p>⁴ Slichter P. Columbian Onion. <i>Flora and Fauna Northwest</i>. [Accessed 5/26/20; http://science.halleyhosting.com/nature/basin/3petal/lily/allium/columbianum.htm]</p> <p>⁵ Fern, K. Allium douglasii. <i>Useful Temperate Plants</i>. [Accessed 5/26/20; http://temperate.theferns.info/plant/Allium+douglasii]</p> <p>⁶ Encyclopedia of Life. Columbian Onion. <i>Encyclopedia of Life</i>. [Accessed 5/26/20; https://eol.org/pages/1084387/articles]</p>
Other Sources Consulted	<p>Mt.gov. Columbia Onion. <i>Montana Field Guides</i>. SEINet. Allium. <i>SEINet Arizona-New Mexico Chapter</i>. [Accessed 5/25/20; http://swbiodiversity.org/seinet/taxa/index.php?tid=5124&clid=0&pid=20&taxauthid=1]</p> <p>University of Washington. Allium columbianum. <i>Encyclopedia of Puget Sound</i>. [Accessed 5/26/20; https://www.eopugetsound.org/species/allium-columbianum]</p> <p>Eastern Washington University. <i>Allium columbianum. Flora of Eastern Washington and Adjacent Idaho</i>. [Accessed 5/26/20; https://inside.ewu.edu/ewflora/allium-columbianum/]</p> <p><i>Allium columbianum</i> (Ownbey & Mingrone) P.M.Peterson, Annable & L.H.Rieseberg in GBIF Secretariat (2019). GBIF Backbone Taxonomy. [Accessed 5/26/20; https://www.gbif.org/species/2855924]</p>
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