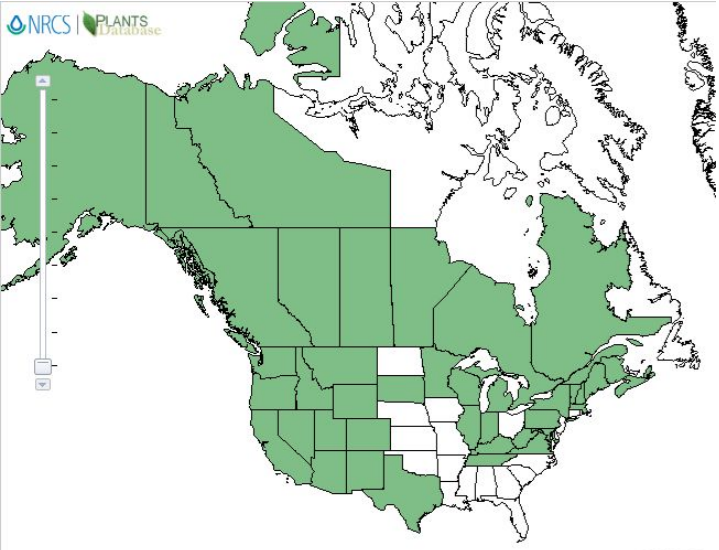
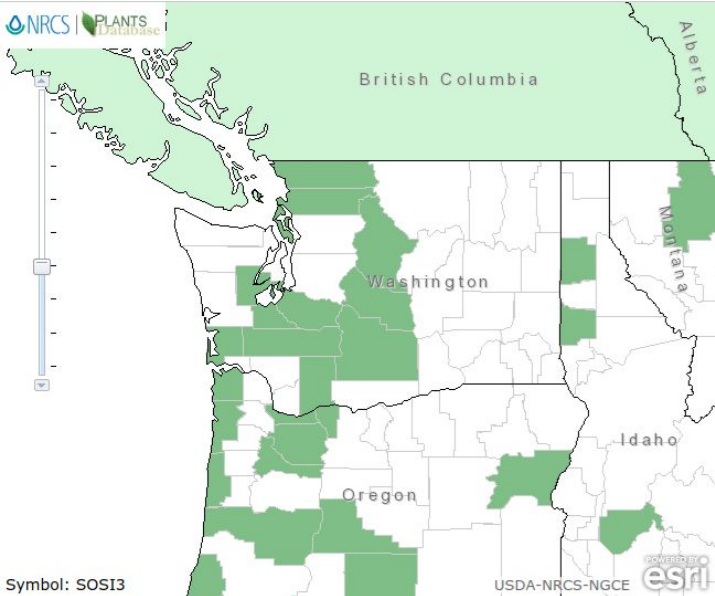


Plant Propagation Protocol for *Solidago simplex*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/SOSI3.pdf>

TAXONOMY	
Plant Family	
Scientific Name	Asteraceae/Compositae ¹
Common Name	Aster Family ¹
Species Scientific Name	
-Scientific Name	<i>Solidago simplex</i> Kunth ¹
Varieties	N/A
Sub-species	<i>Solidago simplex</i> ssp. <i>randii</i> , <i>Solidago simplex</i> ssp. <i>randii</i> var. <i>gillmanii</i> , <i>Solidago simplex</i> ssp. <i>randii</i> var. <i>monticola</i> , <i>Solidago simplex</i> ssp. <i>randii</i> var. <i>ontarioensis</i> , <i>Solidago simplex</i> ssp. <i>randii</i> var. <i>racemosa</i> , <i>Solidago simplex</i> ssp. <i>randii</i> var. <i>randii</i> , <i>Solidago simplex</i> ssp. <i>simplex</i> , <i>Solidago simplex</i> ssp. <i>simplex</i> var. <i>chlorolepis</i> , <i>Solidago simplex</i> ssp. <i>simplex</i> var. <i>nana</i> , <i>Solidago simplex</i> ssp. <i>simplex</i> var. <i>simplex</i> , <i>Solidago simplex</i> ssp. <i>simplex</i> var. <i>spatulata</i> ¹
Cultivar	N/A
Common Synonym(s)	<i>Solidago spatulata</i> ⁶
Common Name(s)	Mt. Albert Goldenrod ¹
Species Code (as per USDA Plants database)	SOSI3 ¹
GENERAL INFORMATION	
Geographical range	

	 <p>Symbol: SOS13</p> <p>USDA-NRCS-NGCE esri</p>
	Native to lower 48 states, Alaska, and Canada. ¹
Ecological distribution	Wide range of habitats. ^{2,3} Usually found in slightly moist areas from coastal dunes to alpine meadows. ²
Climate and elevation range	Performs best in full sun with moist to dry, well drained soils. ⁶ Highly variable altitudinal range. ^{4,5}
Local habitat and abundance	Abundant in the Puget Lowland and the Olympic and Cascade Mountains in Washington. ³
Plant strategy type / successional stage	N/A
Plant characteristics	Herbaceous perennial growing to 2' tall with a clumping, multi-stemmed growth habit. ^{5,6} Showy yellow flowers from mid-June to late-September. ^{3,4} Insect pollinated and propagated through wind-dissemination of seeds or through rhizomes. ⁸ Moderately long-lived. ⁷
PROPAGATION DETAILS	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	1 gallon nursery pot
Time to Grow	1 year
Target Specifications	A well developed crown and root system. Roots should fill the container but not be pot bound. ¹⁰
Propagule Collection Instructions	Harvest seeds when mature in fall and place in brown paper bag to fully dry. Maturity times can vary depending on flowering and weather, and multiple harvests can oftentimes be gathered from individual

	plants. ⁷
Propagule Processing/Propagule Characteristics	-Seeds per pound: 2,000,000 ⁷ -Seed viability is unknown
Pre-Planting Propagule Treatments	-Cleaning: Difficult and time consuming due to the need to break pappas from the seeds. Pappas can be removed with the use of a brushing machine. After pappas are removed, chaff and seeds should be separated with the use of a air-screening machine. ⁷ -Store seeds in cool (38F), dry conditions until ready for production. ¹⁰ -Stratification: Seeds are listed as non-dormant. ⁷
Growing Area Preparation / Annual Practices for Perennial Crops	-Sow 2-3 seeds in 6.5 cubic inch. conetainers (Stubbys) filled with a soilless germination mix. Lightly cover seeds with germination mix or vermiculite. ¹⁰ -Propagation environment: Greenhouse, 65-70F day/ 55F night. Use of propagation domes and heating mats will increase germination timing and consistency. ^{9, 10}
Establishment Phase Details	-Sow seeds in early spring. ¹⁰ -Time to germinate: 4-7 days. ⁹ -Thin seeds to one per cell after first true leaves fully develop. ¹⁰
Length of Establishment Phase	1-2 months ¹⁰
Active Growth Phase	-Transplant healthy and robust seedlings into 1 gallon nursery pots filled with 90% fine bark mulch and 10% compost (or similar well-draining soilless media). After transplanting, move plants to area of partial shade to full sun. ¹⁰ -Mid to late spring through summer ¹⁰
Length of Active Growth Phase	4-5 months ¹⁰
Hardening Phase	Late summer through fall ¹⁰
Length of Hardening Phase	1-2 months ¹⁰
Harvesting, Storage and Shipping	N/A
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	-Outplanting survival rate: Medium ⁷ -Size at maturity: 12-24" tall ^{5, 6} -Plants will flower during the fall of the first year ⁷
Other Comments	N/A

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Other Sources Consulted	N/A
Protocol Author	Derek Allen
Date Protocol Created or Updated	05/24/17