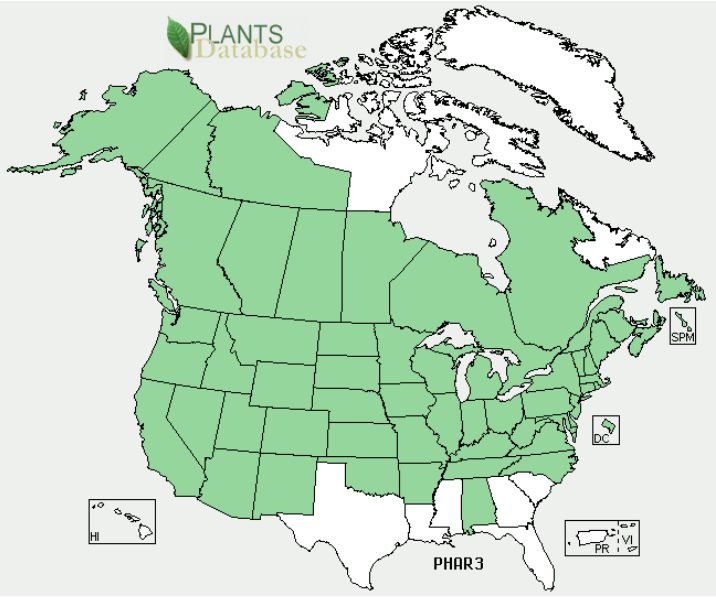
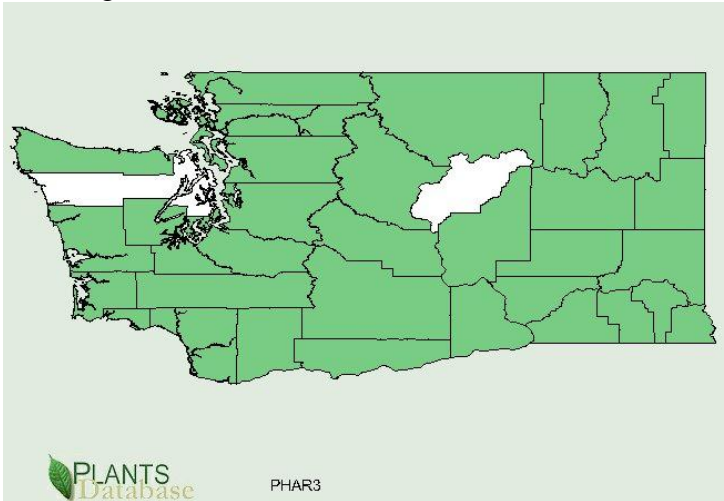


Plant Propagation Protocol for *Phalaris arundinacea*
 ESRM 412 – Native Plant Production

TAXONOMY	
Family Names	
Family Scientific Name:	<i>Poaceae</i>
Family Common Name:	Grass Family
Scientific Names	
Genus:	<i>Phalaris</i>
Species:	<i>arundinacea</i>
Species Authority:	L.
Variety:	N/A
Sub-species:	N/A
Cultivar:	N/A
Authority for Variety/Sub-species:	N/A
Common Synonym(s):	<i>Phalaris arundinacea</i> L var. <i>picta</i> L. <i>Phalaroides arundinacea</i> (L.) Raeusch. <i>Phalaroides arundinacea</i> (L.) Raeusch. var. <i>picta</i> (L.) Tzvelev
Common Name(s):	Reed Canary Grass, gardener's-garters, ribbon grass, variegated grass.
Species Code (as per USDA Plants database):	PHAR3
GENERAL INFORMATION	
Geographical range:	<p>North America Distribution:</p>  <p>The map shows the distribution of <i>Phalaris arundinacea</i> (PHAR3) across North America. The species is present in most of the United States, including Alaska, and extends into southern Canada. There are notable gaps in distribution in the southern United States (Texas, Louisiana, Mississippi, Alabama, Georgia, Florida) and northern Canada. The map includes insets for Hawaii, Puerto Rico, and the District of Columbia. The text 'PLANTS Database' is visible in the top left of the map area, and 'PHAR3' is labeled at the bottom center.</p>

	<p>Washington State Distribution:</p> 
Ecological distribution:	Occurs in temperate regions of North America. ⁷
Climate and elevation range	<p>Native to north temperate climate regions.</p> <p>Grows in areas of low to mid elevations, especially where humans are present or in agricultural areas.³</p>
Local habitat and abundance; may include commonly associated species	Thrives in wet, open areas, but does not tolerate standing water for prolonged periods of time. Does best in wet meadows, marches, and the edges of lakes and wetlands. ²
Plant strategy type / successional stage:	Robust perennial. ³
Plant characteristics:	Tall (2-6ft), perennial grass. Leaf stems grow up to 5ft tall and are round and hollow, with the leaf blade attaching high on the stem and are flat and less than 1in wide. A cluster of small reddish flowers can grow on the stem above the leaves in spring and summer. ²
PROPAGATION DETAILS	
Ecotype:	N/A
Propagation Goal:	Plant
Propagation Method:	Seed and vegetative.
Product Type:	Propagules
Stock Type:	
Time to Grow:	2 years (for entire <i>Phalaris</i> genus). ¹
Target Specifications:	<p>Spring seedlings grow between 10-20in tall and may spread between 6-10in in the first year.⁸</p> <p>Known for its invasive tendencies, as well as its ability to create an “impenetrable” ground covering.⁵</p>
Propagule Collection:	Cut the stem of the plant with inflorescence on it once inflorescence has fully matured in late summer /fall. Keep the stems in a cool, dry place for a few days to allow seeds to finish

	<p>ripening. Pull seeds from plant; the seeds should come away from each “spike” easily.¹</p> <p>Divisions should be taken in the spring.¹</p>
Propagule Processing/Propagule Characteristics:	A fully sodded field will produce 30-50lbs seed/acre. ⁷
Pre-Planting Propagule Treatments (cleaning, dormancy treatments, etc):	Seeds should be sown immediately after they are salvaged or should be stored in a cool, dry area until spring. ¹
Growing Area Preparation / Annual Practices for Perennial Crops:	<p>Sow 3-5 seeds in a 3in (8cm) pot or individually in cell packs in a free draining, soilless seed mix. Keep the temperature at a minimum of 50°F (10°C).¹</p> <p>Divisions should be potted with at least 2 growth buds per pot, and should be kept in a closed frame until new shoots appear.¹</p>
Establishment Phase:	Propagules need to be repotted when pots fill with roots.
Length of Establishment Phase:	N/A
Active Growth Phase (from germination until plants are no longer actively growing):	May-August. ⁴
Length of Active Growth Phase:	3-5 months
Hardening Phase:	N/A
Length of Hardening Phase:	N/A
Harvesting, Storage and Shipping (of seedlings):	N/A
Length of Storage:	N/A
Guidelines for Outplanting / Performance on Typical Sites:	Can be planted in wet and very cold soils (as low as -30°F), and can be moderately drought tolerant. Needs to live somewhere with 18in annual precipitation. ⁷
Other Comments:	<p>Can be extremely invasive, especially in areas without a developed over story. Be very cautious when planting in unrestricted, open areas.</p> <p>Because <i>P. arundinacea</i> is so invasive there isn’t much effort put into propagating this species.</p>
INFORMATION SOURCES	
References:	<ol style="list-style-type: none"> 1. Toogood, Alan R. <i>Plant Propagation</i>. New York: DK Pub, 1999. Print. 2. Leigh, Michael. <i>Grow Your Own Native Landscape: A Guide to Identifying, Propagating & Landscaping with Western</i>

	<p><i>Washington Native Plants</i>. Olympia, Wash: Native Plant Salvage Project, Washington State University Cooperative Extension, Thurston County, 1999. Print.</p> <p>3. Pojar, Jim, A MacKinnon, and Paul B. Alaback. <i>Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska</i>. Redmond, Wash: Lone Pine Pub, 1994. Print.</p> <p>4. Brown, Lauren. <i>Grasses: An Identification Guide</i>. Boston: Houghton Mifflin, 1979. Print.</p> <p>5. Darke, Rick, and Mark Griffiths. <i>Manual of Grasses</i>. Portland, Or: Timber Press, 1994. Print.</p> <p>6. Barkworth, Mary E. <i>Manual of Grasses for North America</i>. Logan, Utah: Intermountain Herbarium and Utah State University Press, 2007. Print.</p> <p>7. "PLANTS Profile." <i>USDA</i>. Natural Resources Conservation Service. Web. 13 May 2012. <http://plants.usda.gov/java/nameSearch?keywordquery=Phalaris+arundinacea&mode=sciname&submit.x=0&submit.y=0>.</p> <p>8. "Phalaris Arundinacea." <i>Phalaris Arundinacea</i>. US Forest Service. Web. 13 May 2012. <http://www.fs.fed.us/database/feis/plants/graminoid/phaaru/all.html>.</p>
Other Sources Consulted:	<p>Hartmann, Hudson T, and Hudson T. Hartmann. <i>Plant Propagation: Principles and Practices</i>. Upper Saddle River, N.J: Prentice Hall, 2002. Print.</p> <p>Fish, Margery. <i>Ground Cover Plants</i>. London: Faber and Faber, 1980. Print.</p> <p>Loewer, H P. <i>Growing and Decorating with Grasses</i>. New York: Walker, 1977. Print.</p> <p>Hitchcock, A S, and Agnes Chase. <i>Manual of the Grasses of the United States</i>. New York: Dover Publications, 1971. Print.</p>
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Date Protocol Created or Updated:	05/16/12

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