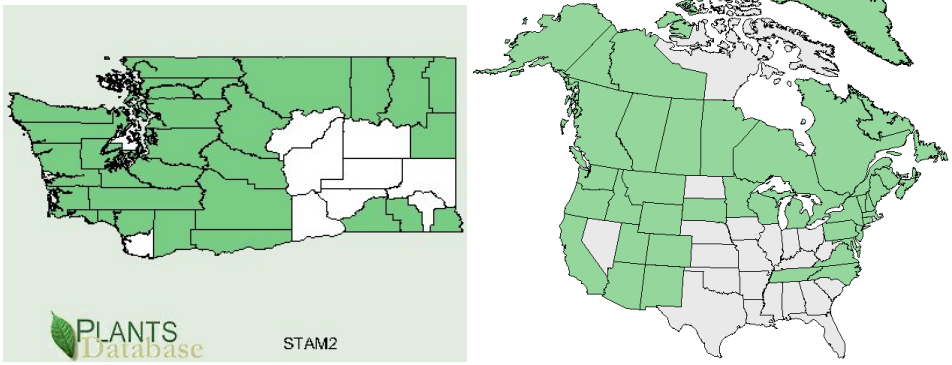
Plant Propagation Protocol for *[Streptopus amplexifolius]*
ESRM 412 – Native Plant Production

TAXONOMY	
Family Names	
Family Scientific Name:	*Liliaceae*
Family Common Name:	Lily
Scientific Names	
Genus:	*Streptopus*
Species:	*amplexifolius*
Species Authority:	Carl Linnaeus and Augustin Pyramus de Candolle (L.) DC
Variety:	*Streptopus amplexifolius* var. *amplexifolius* – claspleaf twistedstalk *Streptopus amplexifolius* var. *chalazatus Fassett* – tubercle twistedstalk *Streptopus amplexifolius* var. *papillatus Ohwi* – claspleaf twistedstalk
Sub-species:	N/A
Cultivar:	N/A
Authority for Variety/Sub-species:	Carl Linnaeus and Augustin Pyramus de Candolle (L.) DC
Common Synonym(s)	*Tortipes amplexifolius*
Common Name(s):	Clasping Twistedstalk; Claspleaf Twistedstalk; Twisted Stalk; Scoot Berry; Watermelon Berry; White Mandarin; Wild Cucumber
Species Code	STAM2
GENERAL INFORMATION	
Geographical range	 (4/left; 7/right)
Ecological distribution	*Streptopus amplexifolius* occurs on streambanks and floodplains; circumboreal—Greenland to Alsaka south to California, Wisconsin, and Massachusetts and in the mountains to Arizona and North Carolina. (1)
Climate and elevation range	*Streptopus amplexifolius* are plants of cool northern forests and prefer a damp, humusy spot and a climate that is not excessively hot and humid. (1) Elevation range: 0-3632 m. (3)
Local habitat and abundance; may include commonly associated species	*Streptopus amplexifolius* likes rich hardwood to coniferous forests habitats. Associated species include *Acer saccharum, Betula allegheniensis, Tsuga canadensis, Pinus strobus, Clintonia borealis, Osmorhiza chilensis, Taxus canadensis, Mitella nuda, Athyrium angustum, Panax trifolius.* (2)
Plant strategy type / successional stage	N/A
Plant characteristics	Twisted stalks, like their cousins the fairybells, send up branched stems from a slender

	rhizome clothed in alternating, sessile leaves. The stems meander like a lazy river from leaf to leaf, especially in some forms of *S. amplexifolius.* These plants have light green leaves with a crystalline quality like fresh iceberg lettuce, and the undersides are paler with a hint of blue. They form soft, orange to blood red fruits as big as small cherries that hang heavily from the stems in late summer. These juicy berries are a favorite of birds fattening up for the coming migration, so they do not last long on the plants. (1)
VEGETATIVE PROPAGATION DETAILS	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	division (Difficult to propagate from seed; seed may exhibit double dormancy and will not emerge until the second year). (5)
Product Type	Container (plug)
Stock Type:	Range: 200 ml containers to 900 ml containers
Time to Grow	Early spring
Target Specifications	Stock Type: Container division Height: 20 cm Caliper: 1 cm Root System: firm plug in container.
Propagule Collection	Propagate by division in early spring. (5)
Propagule Processing / Propagule Characteristics:	Space 9-12” apart. (6)
Pre-Planting Propagule Treatments:	N/A
Growing Area Preparation / Annual Practices for Perennial Crops	The soil should be fertile alluvial. Place these plants out of the strong sun and in a soil that never dries severely in summer. (1)
Establishment Phase	It is best to pot up smaller divisions and grow them in light shade in a greenhouse or cold frame for their first year, planting them out in the following spring. (8)
Length of Establishment Phase:	1 year (8)
Active Growth Phase	N/A
Length of Active Growth Phase	June to September (2)
Hardening Phase	N/A
Length of Hardening Phase:	N/A
Harvesting, Storage and Shipping	Harvest date: March-April
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	N/A
Other Comments:	Collectively, *Streptopus* represents very cold-tolerant plants that may not be useful in areas with excessive summer warmth and extreme dryness. (5)
INFORMATION SOURCES	
References	(1) Cullina, William. *The New England Wild Flower Society Guide to Growing and Propagating Wildflowers of the United States and Canada*. Boston: Houghton Mifflin, 2000. 201-02 p. Print. (2) "Endangered Resources Program Species Information." *Wisconsin Department of Natural Resources*. Web. 18 May 2011. <http://www.dnr.state.wi.us/org/land/er/biodiversity/index.asp?mode=info>. (3) *Flora of North Ameria*. Web. 16 May 2011.

	<http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101972>. (4) "Gen. Streptopus (Liliaceae) / Flora of USA and Canada." *Botanica, Sinonimi E Vari Ipertesti Didattici - Mercoledì, 25 Maggio 2011 - S. BEDA CONF. , S. URBANO - 1306319836*. Web. 18 May 2011. <http://luirig.altervista.org/floranam/streptopus.htm>. (5) Hinkley, Daniel J. *The Explorer's Garden: Rare and Unusual Perennials*. Portland, Or.: Timber, 1999. 333-335 p. Print. (6) "Streptopus Amplexifolius (Clasping-Leaved Twisted-Stalk)." *Welcome to ZipcodeZoo*. Web. 16 May 2011. <http://zipcodezoo.com/Plants/S/Streptopus_amplexifolius/>. (7) *Welcome to the PLANTS Database	USDA PLANTS*. Web. 17 May 2011. <http://plants.usda.gov/java/county?state_name=Washington>. (8) "Wild Cucumber." *Australian Gardening*. Web. 17 May 2011. <http://www.aussiegardening.com.au/findplants/plant/Streptopus_amplexifolius>.
Other Sources Consulted	http://www.nativeplantnetwork.org/ http://www.geog.ubc.ca/biodiversity/eflora/species_list_metadata.html http://montana.plant-life.org/species/strepto_ample.htm http://www.co.monterey.ca.us/planning/docs/eirs/pbc/feir/pdfs-text/feir_appf/f-1/2-mrmp_appa2_dunes_01_zander.pdf http://www.swa.ca/Publications/Documents/ClassificationManagementRiparianWetlandSites.pdf
Protocol Author	Wan Wu
Date Protocol Created	05/18/2011