

Plant Propagation Protocol for *Dichelostemma congestum*
 ESRM 412 – Native Plant Production
 Spring 2008



TAXONOMY	
Family Names	
Family Scientific Name:	<i>Liliaceae</i> (1)
Family Common Name:	Lily (1)
Scientific Names	
Genus:	<i>Dichelostemma</i> (1)
Species:	<i>Congestum</i> (1)
Species Authority:	(Sm.) Kunth (1)
Sub-species:	<i>D. multiflorum</i> & <i>D. capitatum</i> (3)

Authority for Variety/Sub-species:	(Benth.) Wood (3)
Common Synonym(s) (include full scientific names (e.g., <i>Elymus glaucus</i> Buckley), including variety or subspecies information)	<i>Brodiaea congesta</i> Sm. (1)
Common Name(s):	Ookow; Harvest Lily (1)
Species Code (as per USDA Plants database):	DIC019 (1)
GENERAL INFORMATION	
Geographical range (distribution maps for North America and Washington state)	WA, OR, CA, MO (1)
Ecological distribution (ecosystems it occurs in, etc):	Open, Grassy hillsides (2) Open woodlands, grasslands near coast. (4)
Climate and elevation range	0-2000 m. (4)
Plant characteristics (life form (shrub, grass, forb), longevity, key characteristics, etc)	Forb. Perennial with no woody tissue. One head of blue-violet flowers atop a long stalk with few grass-like leaves at the base. Blooms in April, May, and June. (2) 3-4 leaves 4-35cm long. Blade strongly keeled and glaucous. Inflorescences racemose, very dense 6-15 flowered. Flowers erect, perianth bluish purple, tube untangled. (4)
PROPAGATION DETAILS	
Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):	Plants (3)
Propagation Method (Options: Seed or Vegetative):	Seed (3)
Product Type (options: Container (plug), Bareroot)	Container: Plug. (3)

(field grown), Plug + (container-field grown hybrids, and/or Propagules (seeds, cuttings, poles, etc.))	
Stock Type:	Treeband #5 (3)
Time to Grow (from seeding until plants are ready to be outplanted):	2 years (3)
Target Specifications (size or characteristics of target plants to be produced):	Firm plug in container (3)
Propagule Collection (how, when, etc):	Seeds can be collected between April 1 st and September 1 st . seeds are hard and black at maturity. Mature inflorescences are brown. Sow immediately or dry for two weeks. (3)
Propagule Processing/Propagule Characteristics (including seed density (# per pound), seed longevity, etc):	Empty seeds from pods dry and store in a refrigerator. (3)
Pre-Planting Propagule Treatments (cleaning, dormancy treatments, etc):	Soak seeds in fresh water overnight. Then cold stratify for three months or longer until the seeds begin to germinate. (3)
Growing Area Preparation / Annual Practices for Perennial Crops (growing media, type and size of containers, etc):	Sow four grams of seeds per flat. Mix should be "Sunshine Mix #4" aggregate plus (peat moss, perlite, major and minor nutrients, gypsum, and dolomitic lime.) Surface sown. 50% germination. (3)
Establishment Phase (from seeding to germination):	Seeds germinate 14 days after having been sown. Seedlings are transplanted 14 days after germination to individual 5 in. containers. (3)
Length of Establishment Phase:	1 month (3)
Active Growth Phase	After transplanting the seedlings will develop one true leaf that dies back as

(from germination until plants are no longer actively growing):	summer approaches. It will die back an a bulb will remain. The second winter the plant will grow leaves and die back by summer. (3)
INFORMATION SOURCES	
References (full citations):	<ol style="list-style-type: none"> 1. "Dichelostemma congestum (Sm.) Kunth." <u>Natural Resources Conservation Service</u>. United States Department of Agriculture. 30 June 2008 http://plants.usda.gov/java/profile?symbol=DICO19. 2. "Dichelostemma congestum (Sm.) Kunth" <u>Native Plant Database</u>. 2007. Wildflower center, The University of Texas at Austin. 31 May. 2008 http://www.wildflower.org/plants/result.php?id_plant=DICO19. 3. Young, Betty. 2001. Propagation protocol for production of container <i>Dichelostemma capitatum</i> (Benth.) Wood plants (Treeband #5); USDI NPS - Golden Gate National Parks, San Francisco, California. In: Native Plant Network. http://www.nativeplantnetwork.org (accessed 3 June 2008). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery. 4. "Dichelostemma congestum (Smith) Kunth, Dnum. Pl. 4: 470. 1843." <u>Flora of North America</u>. 31 May. 2008 http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=220004030 5.
Other Sources Consulted (but that contained no pertinent information) (full citations):	-USDA, ARS, National Genetic Resources Program. <i>Germplasm Resources Information Network - (GRIN)</i> [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?412317 (03 June 2008)
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