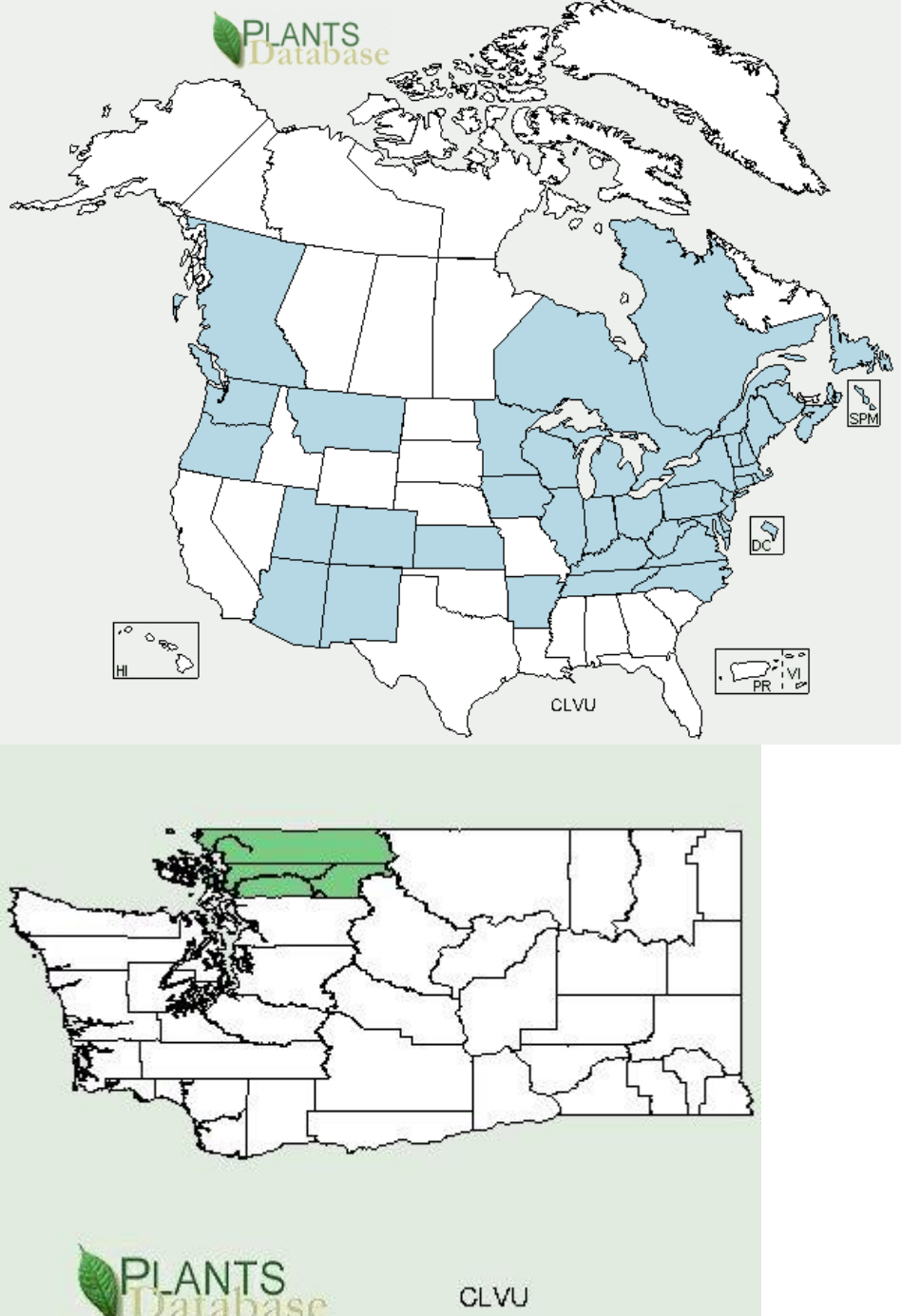




Plant Propagation Protocol for [*Clinopodium Vulgare*]
ESRM 412 – Native Plant Production

TAXONOMY	
Family Names	
Family Scientific Name:	Lamiaceae
Family Common Name:	Mint Family
Scientific Names	
Genus:	Clinopodium
Species:	Vulgare
Species Authority:	L.
Variety:	
Sub-species:	
Cultivar:	
Authority for Variety/Sub-species:	
Common Synonym(s)	<i>Calamintha vulgaris</i> (L.) Halácsy, non Clairv. <i>Calamintha clinopodium</i> <i>Clinopodium vulgare</i> L. var. <i>neogaea</i> (Fernald) C.F. Reed <i>Satureja vulgaris</i> (L.) Fritsch <i>Satureja vulgaris</i> (L.) Fritsch var. <i>diminuta</i> (Simon) Fernald & Wiegand
Common Name:	Wild Basil
Species Code (as per USDA Plants database):	CLVU
GENERAL INFORMATION	

<p>Geographical range (distribution maps for North America and Washington state)</p>	 <p>The top map is a map of North America showing the distribution of the plant. States and provinces are shaded in light blue, indicating the range. The bottom map is a map of Washington state showing the distribution of the plant. The northern part of the state is shaded in green, indicating the range. Both maps include the 'PLANTS Database' logo and the code 'CLVU'.</p>
<p>Ecological distribution (ecosystems it occurs in, etc):</p>	<p>Dry to wet disturbed areas in the lowland, steppe and montane zonesⁱⁱⁱ</p> <p>This plant is native in the northern part of its range but may be introduced from Europe in its southern range.ⁱⁱⁱ</p>
<p>Climate and elevation range</p>	<p>Temperate, Sub-tropical areasⁱ (Not frost tender)</p>
<p>Local habitat and abundance</p>	<p>Wild basil grows well in Acid or Lime/Calcereous soilsⁱⁱ Can colonize open ground after disturbance and hold its ground well as long as it is</p>

	undisturbed. ^{iv}
Plant strategy type / successional stage	Weedy colonizer
Plant characteristics (life form (shrub, grass, forb), longevity, key characteristics, etc)	<p><i>Clinopodium Vulgare</i> is a native perennial forb that grows in a number of different habitats. Although it is considered native to its northern range, it may have been introduced from Europe in its lower range.ⁱⁱⁱ</p> <p>Wild Basil has pink to violet flowers that bloom from June to September. Flowers are strongly bilobed, the upper petal being rooflike. The Calyx of this plant is covered in white hair. Flowers are arranged on the leaf axils up and down the square shaped stem. Distinctive Basil smell when leaves are crushed. Stands 9-18” tall.ⁱ</p> <div style="display: flex; justify-content: space-around;">   </div>
PROPAGATION DETAILS	
Ecotype:	
Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):	Seeds, Cuttings
Propagation Method (Options: Seed or Vegetative):	Seed
Product Type	Container (Plug)
Stock Type:	
Time to Grow (from seeding until plants are ready to be	Germination takes place within 2 weeks, ready to be outplanted late spring or early summer, as long as they are protected from frost ^{iv} Can be stored in greenhouse for a year to allow adequate root development. ^{vii}

outplanted):	
Target Specifications (size or characteristics of target plants to be produced):	Well-established root system plug
Propagule Collection (how, when, etc):	Whole plant can be harvested when flowering begins in June. Allow seedheads to dry on plants; remove and collect seeds ^v
Propagule Processing/Propagule Characteristics	Seeds can be stored if properly cleaned (very small) 2500 seeds per gram ^v
Pre-Planting Propagule Treatments:	
Growing Area Preparation / Annual Practices for Perennial Crops:	Grow in cold frame or greenhouse until plants are large enough to be outplanted. Plant singles with 9-12 in. spacing ^{vi}
Establishment Phase (from seeding to germination):	Cover seed with very thin layer of soil ^{vii}
Length of Establishment Phase:	2 weeks ^{vii}
Active Growth Phase (from germination until plants are no longer actively growing):	Transplant germinants into individual pots and continue growth in greenhouse or cold frame until roots have developed enough to outplant ^{vii}
Length of Active Growth Phase:	
Hardening Phase (from end of active growth phase to end of growing season; primarily related to the development of cold-hardiness	

and preparation for winter):	
Length of Hardening Phase:	
Harvesting, Storage and Shipping (of seedlings):	
Length of Storage (of seedlings, between nursery and outplanting):	
Guidelines for Outplanting / Performance on Typical Sites	Must be protected from frost, sow in cold frame for springtime planting
Other Comments (including collection restrictions or guidelines, if available):	Vulnerable to freezing, sow indoors before last frost or directly sow after last frost. ^x
INFORMATION SOURCES	
References (full citations):	<p>i) W, Poole. Robert. <u>The Natural History of North America</u>. 20 04 2011 (http://www.nearctica.com/flowers/lamia/Cvulgare.htm.)</p> <p>ii) VIRBOGA. <u>The Virtual Botanic Garden</u>. 17 10 2010. 20 April 2011 (http://www.virboga.de/Clinopodium_vulgare.htm).</p> <p>iii) Klinkenberg, Brian. <u>E-Flora BC: Electronic Atlas of the Plants of British Columbia</u>. 2010. 20 April 2011 (http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Clinopodium%20vulgare).</p> <p>iv) <u>Emorsgate Seeds</u>. 20 April 2011 (http://wildseed.co.uk/species/view/39)</p> <p>v) Johnson, Lady Bird. <u>Lady Bird Johnson Wildflower Center</u>. 2011. 20 April 2011 (http://www.wildflower.org/plants/result.php?id_plant=CLVU).</p> <p>vi) <u>Dave's Garden: Plant Files</u>. 2011. 20 April 2011 (http://davesgarden.com/guides/pf/go/61939/).</p> <p>.</p>

	vii) L. <u>Plants For A Future</u> . 2011. 20 April 2011 (http://www.pfaf.org/user/Plant.aspx?LatinName=Clinopodium%20vulgar e).
Other Sources Consulted (but that contained no pertinent information) (full citations):	
Protocol Author (First and last name):	Cory Burk
Date Protocol Created or Updated (MM/DD/YY):	04.20.2011
