

**Plant Propagation Protocol for *Lupinus sulphureus***  
ESRM 412 – Native Plant Production

TAXONOMY	
<b>Family Names</b>	
Family Scientific Name:	Fabaceae (1) Common Family Name: Pea (3)
<b>Scientific Names</b>	
Genus:	<i>Lupinus</i> (1)
Species:	<i>sulphureus</i> (1)
Species Authority:	Douglas ex Hook. (1)
Common Synonym(s) (include full scientific names (e.g., <i>Elymus glaucus</i> Buckley), including variety or subspecies information)	<i>Lupinus sulphureus</i> Douglas ex Hook. var. <i>applegateanus</i> C.P. Sm. (1)  <i>Lupinus sulphureus</i> Douglas ex Hook. var. <i>echleranus</i> C.P. Sm. (1)
Common Name(s):	Sulphur Lupine
Species Code (as per USDA Plants database):	LUSU5 (1)
GENERAL INFORMATION	
Geographical range (distribution maps for North America and Washington state)	In the U.S.: Oregon, Washington In Canada: British Columbia (1)
Ecological distribution (ecosystems it occurs in, etc):	Post disturbance recolonizer
Climate and elevation range	Warm, sunny environments
Local habitat and abundance; may include commonly associated species	“Regional endemic: Douglas County, OR north to Lewis County, WA.” (4). Does well growing amidst other native plants and flowers, found in t
Plant strategy type / successional stage (stress-tolerator, competitor, weedy/colonizer,	Perennial (2)

seral, late successional)	
Plant characteristics (life form (shrub, grass, forb), longevity, key characteristics, etc)	Multiple stemmed forb/herb with spikes of yellow inflorescences and brown seeds. These Grows quickly up to 10 feet tall, but has a short life-span. Has good tolerance to drought requires medium to course-grained soils and at least 120 days without frost to grow. Is not a nitrogen fixers, and therefore a valuable addition to ecosystems. In some areas, Lupines are
<b>PROPAGATION DETAILS</b>	
Ecotype	Flowers from April to June in “native upland prairies as well as open oak woodlands”. It is also found in other. It populates areas that experience periodic disturbances, such as fire, that open up
Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):	Lupines are sold in nurseries for landscaping purposes.(2) The seeds are toxic to livestock
Propagation Method (Options: Seed or Vegetative):	Propagated by container and seed (2)
Product Type	Transport seeds in a flat, organic, plant them in a decomposable pot, punch the bottom of the pot and rake them in
Propagule Processing/Propagule Characteristics (including seed density (# per pound), seed longevity, etc):	Plant between 700 and 2700 seeds per acre. There are 25000 seeds in every pound of <i>Lupinus</i>
Pre-Planting Propagule Treatments (cleaning, dormancy treatments, etc):	Requires no cold stratification (2)
Growing Area Preparation / Annual Practices for Perennial Crops (growing media, type and size of containers, etc):	In general, Lupines don’t tolerate handling well, so its is best to transport them in flats, and cover them with a light blanket of small twigs. (5)
Establishment Phase (from seeding to germination):	Grows back quickly after harvesting (2)
Active Growth Phase (from germination	Spring and Summer (2)

until plants are no longer actively growing):	
<b>INFORMATION SOURCES</b>	
References (full citations):	<ol style="list-style-type: none"> <li>1. <a href="http://plants.usda.gov/java/profile?symbol=LUSU5">http://plants.usda.gov/java/profile?symbol=LUSU5</a></li> <li>2. <a href="http://plants.usda.gov/java/charProfile?symbol=LUSU5">http://plants.usda.gov/java/charProfile?symbol=LUSU5</a></li> <li>3. Pacific northwest National Laboratory. US Department of Energy. Battelle. What</li> <li>4. <i>Lupinus sulphureus</i> ssp. <i>Kincaidii</i>. Department of Natural Resources. <a href="http://www">http://www</a></li> <li>5. Growing California Native Plants. Marjorie G. Schmidt . University of California  <a href="http://books.google.com/books?id=n_D2Ba0ANmAC&amp;pg=PA303&amp;lpg=PA303&amp;sigTqy-4WiiVF9DtbEndI4o&amp;hl=en&amp;ei=t6z4SfvrOJ7yswOXjfXTCg&amp;sa=X&amp;oi=">http://books.google.com/books?id=n_D2Ba0ANmAC&amp;pg=PA303&amp;lpg=PA303&amp;sigTqy-4WiiVF9DtbEndI4o&amp;hl=en&amp;ei=t6z4SfvrOJ7yswOXjfXTCg&amp;sa=X&amp;oi=</a></li> </ol>
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