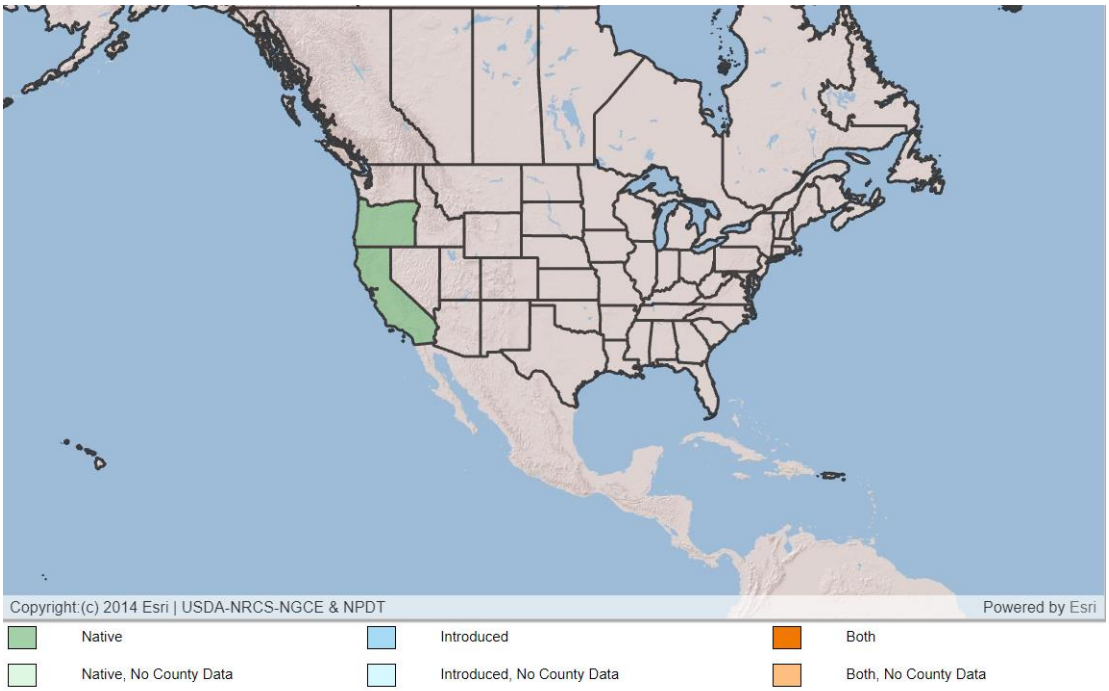
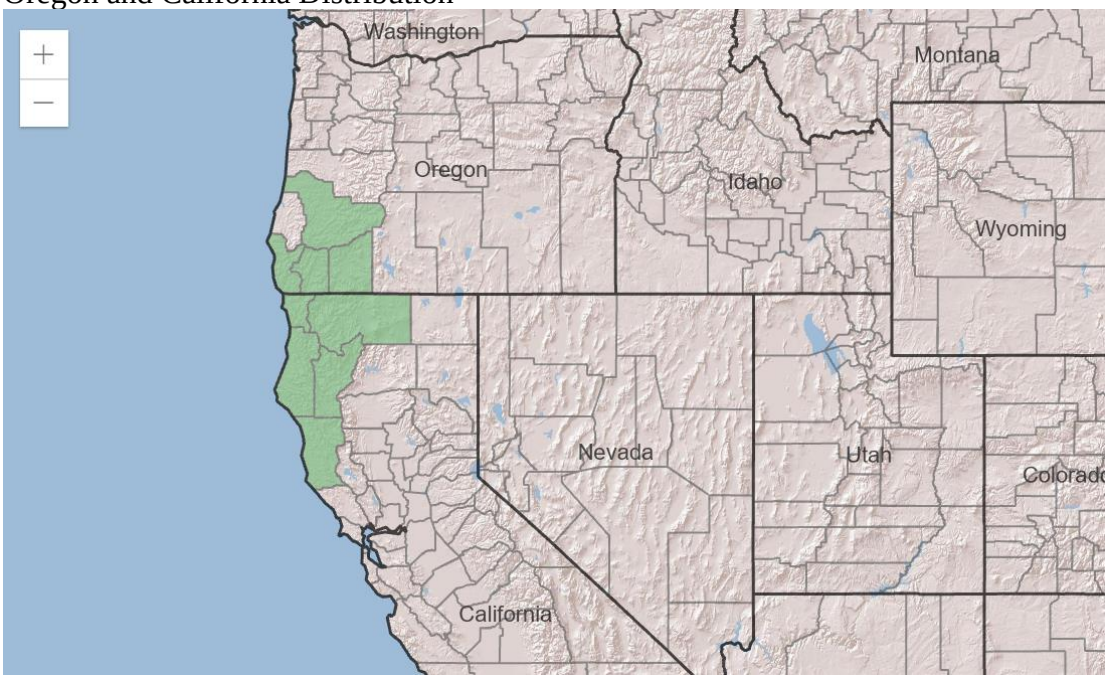
Plant Propagation Protocol for ERCI7
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/2022/ERCI7.pdf

North America Distribution:



Source: USDA PLANTS Database

Oregon and California Distribution



Source USDA PLANTS Database

TAXONOMY	
Plant Family	
Scientific Name	Liliaceae
Common Name	Lily family
Species Scientific Name	
Scientific Name	Genus: *Erythronium* Species: *citrinum* Species Authority: S. Watson
Varieties	*Erythronium citrinum* S. Watson var. *citrinum* *Erythronium citrinum* S. Watson var. *roderickii* Shevock & Allen
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	*Erythronium howellii* S. Watson *Erythronium citrinum var. roderickii* Shevock & G. A. Allen
Common Name(s)	Citrus fawn lily Cream fawn lily Lemon fawn lily Roderick's fawn lily Pale fawn lily
Species Code (as per USDA Plants database)	ERCI7
GENERAL INFORMATION	
Geographical range	Southwest Oregon and adjacent northwest California[5]. See maps above for distribution in North America, Oregon, and California.
Ecological distribution	Dry woods, brushy slopes, common on serpentine substrates[8].
Climate and elevation range	Climate[5]: -Annual Precipitation: 21.1" - 117.7" -Summer Precipitation: 1.14" - 3.10", -Coldest Month: 37.4" - 48.1" -Hottest Month: 60.0" - 70.9", Humidity: 0.32" - 21.26" Elevation: 100–1300 (–1800) m [8]
Local habitat and abundance	It prefers dry woods and brushy slopes, and is common on serpentine substrates[8].
Plant strategy type / successional stage	It's a stress tolerator species as it grows in serpentine soils which are low in essential nutrients and high in heavy metal concentrations[11]. It is also shade tolerant

	and low water tolerant[4]. And can survive a temperature of at least -15°C [9]. It is also assumed that its bulbs can be eaten raw, cooked or dried for later use[6].
Plant characteristics  Photo credit: Mark Turner https://www.pnwflowers.com/flower/erythronium-citrinum	It is a perennial herb that can grow up to 6-8 inches tall[5]. Its flowers are borne on stems that are six to eight inches tall, and it has a pair of broad mottled leaves up to about six inches long[5]. Its stigma is very shallowly three lobed, and its anthers are white[5].
PROPAGATION DETAILS	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Could not find product type explicitly stated. However, looking at a protocol for a similar species, *Erythronium albidum* Nutt[3], the product type is container (plug).
Stock Type	Could not find this information.
Time to Grow	For small bulbs: 3-4 years (1 year then up pot, then let them grow 2-3 more years in a shaded greenhouse) before out planting them[7]. For large bulbs: 1 year, they can be out planted immediately[7].
Target Specifications	Wild, mature plants can grow up to 6-8 inches tall[5].
Propagule Collection Instructions	*Erythronium citrinum* S. Watson flowers around Mar–May[8], so seed collection would need to take place some period of time after flowering.

Propagule Processing/Propagule Characteristics	Could not find this information for this specific species, however another plant with the same genus, *Erythronium albidum* Nutt, indicates that Seeds exhibit morpho-physiological dormancy[3]. This may or may not apply to *Erythronium citrinum* S. Watson. Seeds are best sown as soon as it is ripe in a shady position in a cold frame[7].
Pre-Planting Propagule Treatments	Storage before planting: Stored seed requires a period of cold stratification[7]. Dormancy treatments: Seeds need to be treated for morpho-physiological dormancy if it grows similarly to *Erythronium albidum* Nutt. Pre-planting seed treatment: If this treatment is similar to *Erythronium albidum* Nutt, then seeds need to be warm and cold stratified and ae expected to germinate at 15/6 C [3].
Growing Area Preparation / Annual Practices for Perennial Crops	Media type was not specified. However, since its preferred habitat is dry woods and brushy slopes, and is common on serpentine substrates, soil conditions similar to that would probably be best. Container: a pot, size was not specified.
Establishment Phase Details	Could not find this information.
Length of Establishment Phase	Could not find this information.
Active Growth Phase	Could not find this information.
Length of Active Growth Phase	Could not find this information.
Hardening Phase	Could not find this information.
Length of Hardening Phase	Could not find this information.
Harvesting, Storage and Shipping	
Length of Storage	Could not find this information.
Guidelines for Outplanting / Performance on Typical Sites	Could not find this information.
Other Comments	There is very little propagation information and growth information to be found for this species as it is a more obscure plant with a very narrow habitat range. More research into this plant would be beneficial.
INFORMATION SOURCES	
References	See list below
Other Sources Consulted	Rare Plants UK. (n.d.). *Erythronium citrinum*. https://www.rareplants.co.uk/product/erythronium-citrinum/ Damman, Aimée. (2020). "*ERYTHRONIUM*: THE MAGICAL WOODLAND FAWN LILY". Swanson

	Nursery. https://www.swansonsnursery.com/blog/erythronium-the-magical-miniature-fawn-lily
Protocol Author	Emily Oh
Date Protocol Created or Updated	05/26/22

References:

1. Allen, Geraldine A. & Wetherwax, Margriet (2018). *Erythronium citrinum* var. *citrinum*, in Jepson Flora Project (eds.) Jepson eFlora, Revision 6, https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=58888, accessed on May 26, 2022.
2. Allen, Geraldine A. & Wetherwax, Margriet (2018). *Erythronium*, in Jepson Flora Project (eds.) Jepson eFlora, Revision 6, https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=9511, accessed on May 26, 2022.
3. Baskin, Jerry M., & Baskin, Carol C. (2006). Propagation protocol for production of Container (plug) *Erythronium albidum* Nutt. plants University of Kentucky Lexington, Kentucky. In: Native Plant Network. URL: https://NativePlantNetwork.org (accessed 2022/05/26). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources.
4. Calfora. (n.d.). "*Erythronium citrinum* S. Watson var. *citrinum*". https://www.calflora.org/app/taxon?crn=3495
5. California Native Plant Society. (n.d.). "Cream Fawnlily/*Erythronium citrinum*". https://calscape.org/loc-California/Erythronium%20citrinum%20(Cream%20Fawnlily)
6. Facciola. (1990). *Cornucopia : a source book of edible plants*. Kampong Publications.
7. Fern, K. (2021). Temperate Plants Database. Accessed on May 26, 2022 from http://temperate.theferns.info/plant/Erythronium+citrinum
8. Geraldine A. Allen, Kenneth R. Robertson. (2020). Flora of North America Volume 26 p. 155,158, and160. "*Erythronium citrinum* S. Watson". http://beta.floranorthamerica.org/Erythronium_citrinum
9. Huxley, A., & Griffiths, M. (1999). "The new Royal Horticultural Society dictionary of gardening". Royal Horticultural Society. Grove's Dictionaries Inc.
10. USDA Plants Database. (n.d.). "*Erythronium citrinum* S. Watson/ cream fawnlily". https://plants.usda.gov/home/plantProfile?symbol=ERCI7
11. U.S. Forest Service. (n.d.). "Serpentine Soils and Plant Adaptations". https://www.fs.fed.us/wildflowers/beauty/serpentines/adaptations.shtml
12. JSTOR Global plants compilation. (n.d.). *Erythronium citrinum*. https://plants.jstor.org/compilation/Erythronium.citrinum