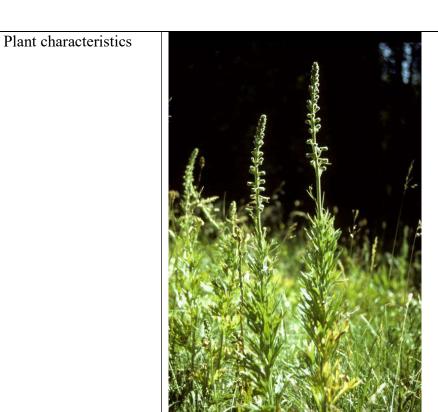
Plant Propagation Protocol for *Delphinium viridescens*ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/2023/DEVI2.pdf

	TAXONOMY
Plant Family	
Scientific Name	Ranunculaceae
Common Name	Buttercup family
Species Scientific	
Name	
Scientific Name	Delphinium viridescens Lieberg
Varieties	Delphinium viridescens Lieberg
Sub-species	None
Cultivar	
Common Synonym(s)	None
Common Name(s)	Wenatchee larkspur
Species Code (as per	DEVI2
USDA Plants	
database)	
,	GENERAL INFORMATION
Geographical range	Wildlife Service) (U.S. Fish & Wildlife Service)
	(Flora of North America)
Englacies 1 41-4-11 41	
Ecological distribution	Endemic to Wenatchee Mountains.
Climate and elevation	Occurs in moist meadows, seasonally wet openings in aspen groves and hardwood thickets, moist
range Local habitat and	microsites in open coniferous forests. Found at 1240-5700 ft. elevation. ¹ Currently listed as "Imperiled". ⁴ However, this species was removed from the federal Endangered and
abundance	Threatened Wildlife and Plants in 1996 due to candidate species being more abundant and widespread than previously believed and not subject to the degree of threats to warrant statues. ² This species is confined to a small range and very specific habitat conditions. Rural development and resulting
	hydrologic changes represent a major threat. ¹
Plant strategy type / successional stage	Perennial plant. Fire may have played a role in creating, enlarging, and maintaining habitat. ¹



(Mark Sheehan, Burke Herbarium Image Collection)



(Rod Gilbert, Burke Herbarium Image Collection)

Delphinium viridescens is distinguished from the other Delphinium occurring in eastern Washington by its dense yellowish glandular hairs on the upper stem and flowers, and iridescent brownish purple to greenish yellow sepals.1

PROPAGATION DETAILS

Adapted from Delphinium nuttallianum. Both are found in areas of Eastern Washington open grasslands.

gi assianus.		
Ecotype	Endemic to Wenatchee Mountains. From Leavenworth, Chelan Co. southward to Kittitas Co. ¹	
Propagation Goal	Plants ⁷	
Propagation Method	Seed ⁷	
Product Type	Container (plug) ⁷	
Stock Type		
Time to Grow	2 years ⁷	
Target Specifications	Tight root plug in container. ⁷	
Propagule Collection Instructions	Seed is collected when the follicles begin to split in June. Seed may either be shaken from the follicles into an envelope or whole follicles may be collected. Collected seeds should be stored in paper bags or envelopes at room temperature until cleaned. ⁷	
Propagule Processing/Propagule Characteristics	Fruit is a follicle and seed is black in color when mature. Seed shaken from follicles need no cleaning. Follicles are crushed to release seed and seed is cleaned with an air column separator. ⁷	
Pre-Planting Propagule Treatments	Extended cold, moist stratification may be needed, and cool spring temperatures may be necessary. In germination trials, no germination occurred without stratification and no seed germinated after 30 days cold, moist stratification. In trials, seed sown in late December and left outside did not germinate in the first season but germinated well after a second winter: Seed sown outdoors in November germinated in the following spring. ⁷	
Growing Area Preparation / Annual Practices for Perennial Crops	In mid November seed is sown in 10 cu. in Ray Leach Super cell conetainers filled with Sunshine #4 and covered lightly. A thin layer of pea gravel is applied to prevent seeds from floating. Conetainers are watered deeply and placed outside. ⁷	
Establishment Phase Details	Plants remain outside and are only watered during dry spells. Germination begins in March and may continue over 2-3 weeks. ⁷	
Length of Establishment	1 month ⁷	
Active Growth Phase	Plants are watered as needed while outside and fertilized once a week with a water-soluble fertilizer. Plants are moved to the lath house in June. Fertilizer is withheld after dormancy and the conetainers and watered only enough to prevent complete desiccation of the soil. ⁷	
Length of Active Growth Phase	2 months ⁷	
Hardening Phase	Hardening is not needed as plants are grown outside and are dormant as winter approaches. ⁷	
Length of Hardening Phase	N/A	

Harvesting, Storage and Shipping	Plants will go dormant during the summer and begin growing early the following spring. Plants are stored over the winter in the lath house with no protection except snow cover. Plants exposed to	
	extreme low temperatures with no snow cover should be afforded some insulation. ⁷	
Length of Storage Guidelines for Outplanting / Performance on Typical Sites	Growth in containers is slow. Plants respond well to being planted out in soil if roots are not disturbed in the process. Plants grown in trials are short-lived but re-seed readily. ⁷	
Other Comments	As this species is endemic to the Wentachee mountains and struggle to grow in greenhouse conditions, propagation is rare and details are largely unknown for <i>Delphinium viridescens</i> . Best practices for restoration and preservation are in the preservation of habitat rather than plant production.	
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Protocol Author	Caroline Kelly	
Date Protocol Created or Updated	5/21/2023	