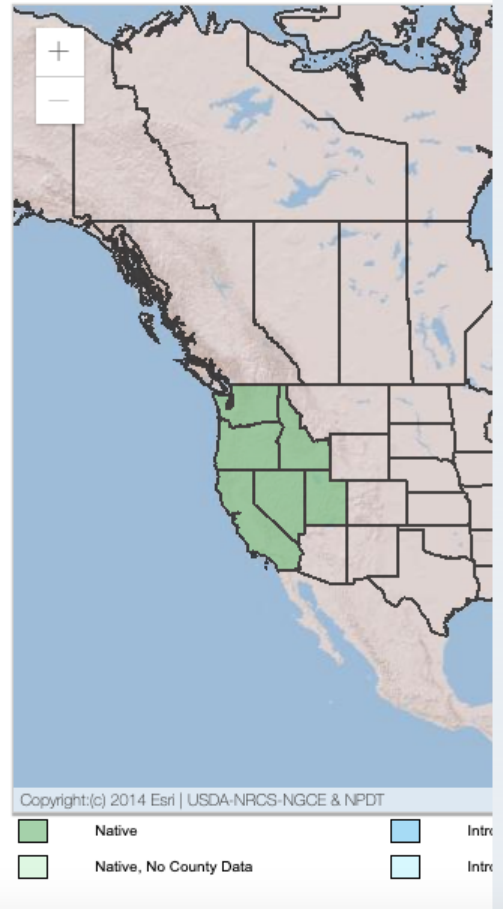
Plant Propagation Protocol for *[Insert Species]*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*[2021]*/*[ASFA.pdf]*

TAXONOMY	
Plant Family	Asclepiadaceae
Scientific Name	*Asclepias fascicularis*
Common Name	Mexican whorled milkweed or Narrowleaf Milkweed
Species Scientific Name	
Scientific Name	*Asclepias fascicularis* Decne. [1]
Varieties	NONE
Sub-species	NONE
Cultivar	
Common Synonym(s)	
Common Name(s)	Mexican Whorled Milkweed, Narrowleaf Milkweed
Species Code (as per USDA Plants database)	ASFA
GENERAL INFORMATION	
Geographical range	 [1] Found in CA, ID, NV, OR, UT, WA
Ecological distribution	Dry climates, plains, hills, valleys, roadsides and disturbed grounds. [2][5]

Climate and elevation range	Tolerate minimum temperature of -10 to 0 F 0-6400 ft elevation Hardiness zones of 6b to 10b [2][5][7]
Local habitat and abundance	Needs full sun, prefers open habitat with dry to wet conditions. Tends to grow in patches or clumps of plants [5]
Plant strategy type / successional stage	Weedy, colonizer, or seral species. Is often found along roadsides and abandoned properties [2]
Plant characteristics	Annual, perennial, shrub. Leaves are generally opposite or whorled. Umbel like inflorescence on top nodes. Pale/ light green in color. Grows 2-3 feet [2][5][7]
PROPAGATION DETAILS (Report one type of propagation in section; duplicate section as needed for multiple types of propagation)	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed
Product Type	propagule
Stock Type	
Time to Grow	16 weeks [6]
Target Specifications	Root development, development of root system [6]
Propagule Collection Instructions	Collect seeds before they disperse, while they are still in their seed pods or their seed pods have just recently split open. Seeds will keep being produced during the flower period, so multiple collection dates is recommended. This can be from July until mid-September (flowering occurs from June through August) [6] [3]
Propagule Processing/Propagule Characteristics	Unknown
Pre-Planting Propagule Treatments	Seeds need light to germinate. Seeds need to be removed from silky hairs of their wind dispersing characteristics Seeds placed in bags with 1% hydrogen peroxide, soaked for 24 hours (3:1 water/ 3% hydrogen peroxide). Seeds are removed rinsed and soaked in water for an additional 24 hours. Cold stratified for 45 days after. [6] Some sources say no treatment, seeds will readily germinate [5][4] If seed is collected at higher elevations or in colder environments, a cold stratification period of 1-3 months increases germination rates [3]
Growing Area Preparation / Annual Practices	Growing media, 2:1:1:1:1 peat:composted bark: perlite: pumice Fertilizer treatment (18-6-8), slow release

for Perennial Crops	Plant into anything less than 1 gallon container, plug trays work [6]
Establishment Phase Details	10-14 days until germination, sowed directly into containers Fertilize with a 12-2-14-6Ca-3Mg soluble liquid fertilizer at 75 ppm for 1 week. [6]
Length of Establishment Phase	2-3 weeks [6]
Active Growth Phase	Once germinated, fertilize with a 20—9-20 NPK, 20-18-18, or 17-5-24 NPK at 100-150 ppm every week throughout growing season. [6]
Length of Active Growth Phase	14 weeks [6]
Hardening Phase	Plants are moved to outdoor growing area in early to mid September [6]
Length of Hardening Phase	2-3 weeks [6]
Harvesting, Storage and Shipping	Seedlings out planted in fall, water well before shipping [6]
Length of Storage	*Asclepias* species don't over-winter well in pots, they might be annual if left in pots for a full year
Guidelines for Outplanting / Performance on Typical Sites	Plant seedlings anywhere from September to December [6]
Other Comments	

INFORMATION SOURCES

References

[1] Anderson, Kat. "NARROW-LEAVED MILKWEED." *Plant Guide*, USDA, plants.sc.egov.usda.gov/DocumentLibrary/plantguide/pdf/pg_asfa.pdf.

[2] "Asclepias Fascicularis." *Bring Back The Monarchs*, monarchwatch.org/bring-back-the-monarchs/milkweed/milkweed-profiles/asclepias-fascicularis/.

[3] Borders, Brianna D. "ASFA." *Asclepias Fasciucularis* , esrp.csustan.edu/projects/lrdp/vfpc/profiles/ASFA.pdf.

[4] Connolly, Kitty, et al. "Growing Milkweed from Seed." *Theodore Payne Foundation*, theodorepayne.org/growing-milkweed-from-seed/.

[5] "Plant Database." *Lady Bird Johnson Wildflower Center - The University of Texas at Austin*, www.wildflower.org/plants/result.php?id_plant=ASFA.

[6] Riley, Lee E, and Allison Klocke. "Asclepiadaceae (Asclepias)." *Reforestation, Nurseries and Genetics Resources*, npn.rngr.net/npn/propagation/protocols/asclepiadaceae-asclepias-4/?searchterm=asclepias+fascicularis.

[7] Rosatti, Thomas J, and Carol A Hoffman. *Asclepias Fascicularis*, ucjeps.berkeley.edu/eflora/eflora_display.php?tid=14375.

Other Sources Consulted	Landis, Thomas D, and R Kasten Dumro. *Propagating Native Milkweeds for Restoring Monarch Butterfly Habitat*. www.fs.fed.us/rm/pubs_journals/2015/rmrs_2015_landis_t001.pdf? Bullard, Valerie, et al. *Milkweed Establishment in California's Central Valley: Comparison of Asclepias Eriocarpus, A. Fascicularis, and A. Speciosa by Transplants* . www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/capmcsr13650.pdf.
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